



US Army Corps  
of Engineers  
Alaska District

Regulatory Branch (1145b)  
8800 Glacier Highway  
Suite 106  
Juneau, Alaska 99801-8079

# Public Notice of Application for Permit

PUBLIC NOTICE DATE: April 21, 2006

EXPIRATION DATE: May 22, 2006

REFERENCE NUMBER: 2006-597-2

WATERWAY: Lynn Canal

Interested parties are hereby notified that an application has been received for a Department of the Army (DA) permit for certain work in waters of the United States (U.S.) as described below and shown on the attached plan.

**APPLICANT:** Alaska Department of Transportation and Public Facilities (ADOT/PF); 6860 Glacier Highway, Post Office Box 112506, Juneau, Alaska 99811-2506

**LOCATION:** The project starts on the existing Glacier Highway in the SW  $\frac{1}{4}$ , NE  $\frac{1}{4}$  of Section 18, Township 37 South, Range 64 West, Latitude 58.663344° North, Longitude 134.903281° West, in the City and Borough of Juneau, Alaska. The road would continue north and west 50.8 miles, partially following the existing alignment of the Cascade Point Road and the Jualin Mine Access Road, and ending at the proposed ferry terminal. The ferry terminal would be located in the NW  $\frac{1}{4}$ , SW  $\frac{1}{4}$  of Section 33, Township 30 South, Range 60 East, Latitude 59.227191° North, Longitude 135.327309° West, in Haines Borough, Alaska.

**WORK:** The applicant proposes to discharge an approximate total of 2,942,900 cubic yards (cy) of fill and dredged fill materials into an approximate total of 253.18 acres of waters, including forested wetlands, stream channels, deep-water habitat, vegetated shallows, and in navigable waters of the U.S., in conjunction with the construction of a new road and associated infrastructure:

<u>Proposed Facilities</u>	<u>Waters to be Filled (Acres)</u>	<u>Proposed Fill Volume (cy)</u>	<u>Comments</u>
Road	80.56	1,409,200	To be done in 9 segments
Slope stabilization	14.70	0	Temporary fill (see below)
Channel work	1.35	5,517	Outside wetland areas
Rock Disposal	150.00	1,400,000	Not including temporary fill
Ferry Terminal	3.83	79,400	Just north of Katzeihin River
Ferry Breakwaters	2.74	51,000	Composed of rock rubble
TOTAL:	253.18	2,942,900	

Approximately 14.7 acres of wetlands, outside the road fill footprint, would be excavated by heavy equipment, including bulldozers, to provide for slope stabilization and proper drainage of the area. Bulldozing and grading soils

across wetlands is subject to Section 404 permit requirements, even though the applicant has informed the Corps of Engineers (Corps) that there would be no permanent fill piles left in the wetlands outside the road fill footprint. The Corps has determined that these actions would be temporary discharges of fill material in waters of the U.S. The applicant states that ditches would only be excavated for slope drainage and would not be excavated where they would drain wetland areas.

**Road:** The project would require the mechanized landclearing of 69.1 acres of stumps that would be left after logging 88.3 acres of forested wetlands for the 7.93 miles of road that would traverse forested wetlands. The landclearing would not extend beyond the width of the road fill or the excavated area, as shown on the detailed sheets (see "Additional Information" section). All excavated material would be placed on an upland area or used within the requested fill area.

The road would be placed in 25.58 acres of marine (tidal) waters along the east side of Lynn Canal, north of Comet Beach. The road, which would be composed of shot rock fill, would be protected at its base with 6 feet of Class IV rock riprap extending up to elevation +24 feet above the 0.0 foot contour. Approximately 1.4 million cy of blasted rock would be disposed of in deep water (below the -10 foot contour) in two areas of Segment 6. The rock would cover a maximum area of 150 acres. Temporary sidecasting of the rock between the HTL and -10 foot contour may occur during transport of the rock to the disposal area, but the area above the -10 foot contour would be returned to preconstruction contours once the project is completed.

**Culverts:** The project would involve the installation of 443 new culverts and the extension of 19 culverts in waters of the U.S. The culverts would typically be laced in a bedding footprint of 1.5 feet on either side of the pipe, with approximately 1.5 feet of bedding below and above the pipe. Pipe alignments and gradients would match the natural stream beds except where excavation or excessive skew make this impracticable. The culverts would be installed by temporary diversion, by either pumping water around the site or by diverting the water through a temporary lined channel. The work would be done during low flow periods and standard procedures would be used to minimize water quality impacts.

The applicant has completed a detailed culvert analysis for Segments 1, 3, 5, and part of 6, involving the installation of 241 of the 443 culverts. These 241 culverts would require the discharge of 3,300 cy of bedding, 2192 cy of rock riprap, and 25.1 cy of concrete discharged into 1.35 acres of waters of the U.S. outside of wetland areas (below the ordinary high water mark of streams). The applicant estimates an additional 0.85 acres of waters of the U.S. would be filled for the additional culverts and rock flumes for the remainder of segments 6 and 8, but this would require additional DA authorization once final plans for those areas are submitted.

**Ferry Terminal:** The applicant has submitted preliminary information for a new ferry terminal to be located approximately two miles north of the Katzeihin River. The preliminary information shows that approximately 130,400 cy of fill material would be discharged into waters of the U.S. below the HTL for the construction of the new ferry terminal. Approximately 79,400 cy of this fill material would be placed in a 450-foot long by 365-foot wide area for the

terminal area, which would consist of parking area, terminal building, wastewater treatment area, generator building, and oil and water separators. The remaining 51,000 cy of fill material would be placed for two breakwaters that would have a maximum base width of 180 feet and would be placed above the -30 foot contour. The south breakwater would be 500 feet long and the north breakwater would be 400 feet long. A 100-foot long steel sheet pile wave barrier would be attached to the channelward end of the north breakwater. The wave barrier would have a dolphin pile support, consisting of three 24-inch diameter piles, attached to its end. The breakwaters would contain gaps or culverts to allow for fish passage.

A mooring facility for the State ferry would be constructed off the north end of the terminal fill area. The mooring facility would consist of a stern berth with a 60-foot by 80-foot steel float, a 143-foot long by 20-foot wide steel transfer bridge, and six mooring structures. The mooring structures would consist of four mooring dolphins each consisting of three 24-inch diameter piles and four 30-inch diameter piles. There would also be two float restraint dolphins each consisting of four 30-inch diameter piles. All piles would be steel and pile driving would be by vibratory hammer to the extent practicable.

The terminal facility would require the dredging of approximately 40,000 cy of marine sediment from a 4.4-acre area to the -25 foot contour for a mooring basin. The dredged material would be used for the ferry terminal fill area and it would be contained behind a six-foot thick layer of rock riprap.

**PURPOSE:** The applicant's stated purpose is to "provide improved surface transportation to and from Juneau within the Lynn Canal corridor that will provide the capacity to meet the transportation demand in the corridor, provide flexibility and improve opportunity for travel, reduce travel time between the Lynn Canal communities of Juneau, Haines, and Skagway, reduce state and user costs for transportation in the corridor."

**ADDITIONAL INFORMATION:** The applicant states that the project would be constructed in the following nine segments:

<u>SEGMENT</u>	<u>DESCRIPTION</u>	<u>DETAILED SHEETS<sup>1</sup></u>
1	Echo Cove to Antler River	1-17 of 72
2	Antler/Gilkey River Bridge	17-18 of 72
3	Antler-Lace Peninsula	18-20 of 72
4	Berners/Lace River Bridge (BRB)	20-21 of 72
5	BRB to Independence Creek (IC)	21-44 of 72
6	IC to Katzechin River Bridge	44-70 of 72
7	Katzechin River Bridge	70-71 of 72
8	Katzechin River to ferry terminal	71-72 of 72
9	ferry terminal	72 of 72

<sup>1</sup>-See the additional 72 drawings that are a supplement to this notice for a closeup detail of the route and the work within DA authorization. These detailed sheets are available upon verbal or written request from this office or at: <http://www.poa.usace.army.mil/reg/DD72pMit.pdf>

The Corps is accepting comments on the total road project, except Segments 2, 4, and 7, which are bridges not within Corps jurisdiction. However, detailed designs have only been completed for Segments 1 and 5. Final design plans for Segments 3, 6, 8, and 9 would be evaluated and would be approved by modifying the permit, as appropriate. It is the Corps' intention to reach a permit

decision for the entire access project following conclusion of the public interest review and our determination of compliance with the 404(b)(1) Guidelines.

The U.S. Coast Guard (USCG) has jurisdiction over the bridges in Segments 2, 4, and 7, pursuant to Section 9 of the Rivers and Harbors Act, through the Transportation Act of 1966 transferring this authority to the USCG from the Corps. Comments on these bridge segments should be submitted to the Commander, 17<sup>th</sup> District, U.S. Coast Guard, Post Office Box 25517, Juneau, Alaska 99802-5517.

Segment 1 starts at the south end of the project where it would incorporate approximately 2.67 miles of the existing Cascade Point Road that was previously authorized by the Corps (permit #POA-1997-245-4) and stops at the Antler River. Open-pile bridges, with approach fills, would cross over the Antler and Lace Rivers where the road heads southwest and incorporates approximately 0.81 miles of the existing Jualin Access Road. The road then continues west before turning north along the east shore of Lynn Canal and ending at a proposed ferry terminal. The new paved roadway would have a 30-foot top paved width, including two 11-foot driving lanes and two 4-foot paved shoulders. Blasting would be required to install the road in Segment 6 and would generate 1.4 million cubic yards of excess rock. None of the blasted material would be directly discharged into any waters of the U.S.

The Final Environmental Impact Statement (FEIS) for the Juneau Access Improvement project was published on January 2006, and a copy may be viewed at the Corps Juneau Field Office (see address at top of public notice). This document would assist the Corps in evaluating the project's basic purpose(s) and need, as well as practicable and least-damaging alternatives. A determination of issuance or denial of the DA permit would not be completed until after an evaluation of all available information has been conducted.

The FEIS and other project information can also be found at: <http://dot.alaska.gov/juneauaccess>. Please contact the applicant's representative, Mr. Reuben Yost, ADOT/PF, 6860 Glacier Highway, Post Office Box 112506, Juneau, Alaska 99811-2506, or call Mr. Yost at (907) 465-1828, or E-mail Mr. Yost at: [mailto:reuben\\_yost@dot.state.ak.us](mailto:reuben_yost@dot.state.ak.us) for further information.

**MITIGATION:** As a result of early project planning and preapplication coordination, the applicant has proposed numerous mitigation efforts to reduce impacts to the aquatic environment. The details of this mitigation plan are described in a 6-page document titled, "Mitigation Commitments Relevant to Section 404 of the Clean Water Act" and is attached to the detailed drawings link and/or is available upon verbal or written request from this office. This plan includes a compensatory mitigation proposal, which would consist of constructing an additional wildlife underpass between the Antler and Lace Rivers (in Segment 3) at a cost of \$440,000. In addition, the applicant proposes to contribute \$780,000 as in-lieu fee payment, which would be expected to fund the following projects (in order of prioritization):

- a. The purchase of a privately-owned 64.7 acre property parcel that consists of 6.1 acres of palustrine emergent wetlands and a 3,300-foot long estuarine emergent wetland shoreline and would become part of Point Bridget State Park;
- b. The construction of an artificial reef and/or reef structures, which would likely be designed by resource agency staff with Corps approval;

c. The purchase of a 1.6-acre private property tract in Haines, Alaska, which is adjacent to Sawmill Creek and has been platted for lot development;

d. The additional funding of the Pullen Creek fish passage and restoration project in Skagway, Alaska so phase 2 can be completed.

**WATER QUALITY CERTIFICATION:** A permit for the described work will not be issued until a certification, or waiver of certification, as required under Section 401 of the Clean Water Act (Public Law 95-217), has been received from the Alaska Department of Environmental Conservation.

**COASTAL ZONE MANAGEMENT ACT CERTIFICATION:** Section 307(c)(3) of the Coastal Zone, Management Act of 1972, as amended by 16 U.S.C. 1456(c)(3), requires the applicant to certify that the described activity affecting land or water uses in the Coastal Zone complies with the Alaska Coastal Management Program. A permit will not be issued until the Office of Project Management and Permitting, Department of Natural Resources has concurred with the applicant's certification.

**PUBLIC HEARING:** Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, reasons for holding a public hearing.

**CULTURAL RESOURCES:** The Federal Highway Administration (FHWA) stated in a letter, dated September 1, 2005, and addressed to the State Historic Preservation Officer (SHPO), that five properties (JUN-22, JUN-928, JUN-932, JUN-945, JUN-946) eligible for listing in the National Register of Historic Places, were within the project's area of potential effect. The FHWA stated that the project would not adversely affect any of the properties, as they would be avoided. The SHPO stated in a letter, dated October 5, 2005, that they concurred with the FHWA No Adverse Effect determination, provided the properties were avoided and documented. This application is being coordinated with SHPO. Any additional comments SHPO may have concerning presently unknown archeological or historic data, that may be lost or destroyed by work under the requested permit, will be considered in our final assessment of the described work.

**TRIBAL CONSULTATION:** The Alaska District fully supports tribal self-governance and government-to-government relations between the Federal government and Federally recognized Tribes. This notice invites participation by agencies, Tribes, and members of the public in the Federal decision-making process. In addition, Tribes with protected rights or resources that could be significantly affected by a proposed Federal action (e.g., a permit decision) have the right to consult with the Alaska District on a government-to-government basis. Views of each Tribe regarding protected rights and resources will be accorded due consideration in this process. This Public Notice serves as notification to the Tribes within the area potentially affected by the proposed work and invites their participation in the Federal decision-making process regarding the protected Tribal right or resource. Consultation may be initiated by the affected Tribe upon written request to the District Engineer during the public comment period.

**ENDANGERED SPECIES:** The project area is within the known or historic range of the Stellar Sea Lion and the Humpback Whale. The applicant states Section 7 Endangered Species Act (87 Stat. 844) consultation, with the National Marine Fisheries Service (NMFS), was completed and they prepared a Biological Assessment and Stellar Sea Lion technical report (found in Appendix S of the FEIS). The FEIS states that on September 27, 2005, the NMFS concurred with the

FHWA determination that the proposed project is not likely to adversely affect Humpback Whales or Stellar Sea Lions, or their critical habitat. This application is being coordinated with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. Any comments they may have concerning endangered or threatened wildlife or plants, or their critical habitat, will be considered in our final assessment of the described work.

**ESSENTIAL FISH HABITAT:** The FHWA determined that the project may adversely effect Essential Fish Habitat (EFH) pursuant to the Magnuson Stevens Fishery Conservation and Management Act of 1996, 16 U.S.C. et seq and associated Federal regulations found at 50 CFR 600 Subpart K. The Alaska District includes areas of EFH as Fishery Management Plans.

The applicant prepared an EFH Assessment (found in Appendix N of the FEIS), which determined that the project would not substantially affect any fish or invertebrate populations in Lynn Canal. The National Marine Fishery Service EFH recommendations were to move the Berners/Lace and Antler River bridges as far upstream as possible and provide compensatory mitigation for the loss of intertidal, subtidal, and wetland habitats. The FEIS states these recommendations have been adopted (and are made part of this notice).

**SPECIAL AREA DESIGNATION:** The project is located within the Tongass National Forest.

**EVALUATION:** The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts, which the proposed activity may have on the public interest, requires a careful weighing of all the factors that become relevant in each particular case. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur, are therefore determined by the outcome of the general balancing process. That decision should reflect the national concern for both protection and utilization of important resources. All factors, which may be relevant to the proposal, must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency's 404(b)(1) guidelines. Subject to the preceding sentence and any other applicable guidelines or criteria (see Sections 320.2 and 320.3), a permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National

Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Comments on the described work, with the reference number, should reach this office no later than the expiration date of this Public Notice to become part of the record and be considered in the decision. The Corps encourages comments be sent by electronic mail (email) to <mailto:Juneau.Access@poa02.usace.army.mil>. Please contact Mr. Jeff Koschak at (907) 790-4490, or by mail at the top of this public notice, or by email at <mailto:jeffrey.a.koschak@poa02.usace.army.mil> if further information is desired concerning this notice.

AUTHORITY: This permit will be issued or denied under the following authorities:

**(X)** Perform work in or affecting navigable waters of the United States - Section 10 Rivers and Harbors Act 1899 (33 U.S.C. 403).

**(X)** Discharge dredged or fill material into waters of the United States - Section 404 Clean Water Act (33 U.S.C. 1344). Therefore, our public interest review will consider the guidelines set forth under Section 404(b) of the Clean Water Act (40 CFR 230).

( ) Transport dredged material for the purpose of dumping it into ocean waters - Section 103 Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413). Therefore, our public interest review will consider the criteria established under authority of Section 102(a) of the Marine Protection, Research and Sanctuaries Act of 1972, as amended (40 CFR Parts 220 to 229), as appropriate.

A plan, Notice of Application for Certification of Consistency with the Alaska Coastal Management Program, and Notice of Application for State Water Quality Certification are attached to this Public Notice.

District Engineer  
U.S. Army, Corps of Engineers

Attachments

# STATE OF ALASKA

## *OFFICE OF THE GOVERNOR*

### DEPT. OF ENVIRONMENTAL CONSERVATION

#### DIVISION OF AIR AND WATER QUALITY

Non-Point Source Control Section  
401 Certification Program

### NOTICE OF APPLICATION

#### FOR

#### STATE WATER QUALITY CERTIFICATION

Any applicant for a federal license or permit to conduct an activity that might result in a discharge into navigable waters, in accordance with Section 401 of the Clean Water Act of 1977 (PL95-217), also must apply for and obtain certification from the Alaska Department of Environmental Conservation that the discharge will comply with the Clean Water Act, the Alaska Water Quality Standards, and other applicable State laws. By agreement between the U.S. Army Corps of Engineers and the Department of Environmental Conservation, application for a Department of the Army permit to discharge dredged or fill material into navigable waters under Section 404 of the Clean Water Act also may serve as application for State Water Quality Certification.

Notice is hereby given that the application for a Department of the Army Permit described in the Corps of Engineers' Public Notice No. **POA-2006-597-2 (Lynn Canal)**, serves as application for State Water Quality Certification from the Department of Environmental Conservation.

After reviewing the application, the Department may certify that there is reasonable assurance that the activity, and any discharge that might result, will comply with the Clean Water Act, the Alaska Water Quality Standards, and other applicable State laws. The Department also may deny or waive certification.

Any person desiring to comment on the project with respect to Water Quality Certification may submit written comments within 30 days of the date of the Corps of Engineer's Public Notice to:

Department of Environmental Conservation  
WQM/401 Certification  
410 Willoughby Avenue  
Juneau, Alaska 99801-1795  
Telephone: (907) 465-5321  
FAX: (907) 465-5274



*STATE OF ALASKA*

OFFICE OF THE GOVERNOR

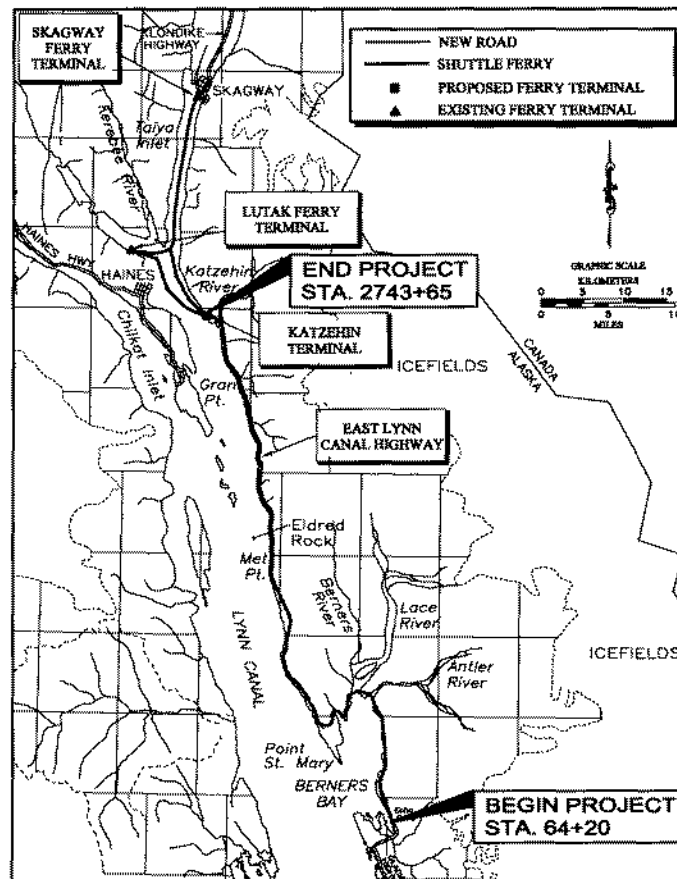
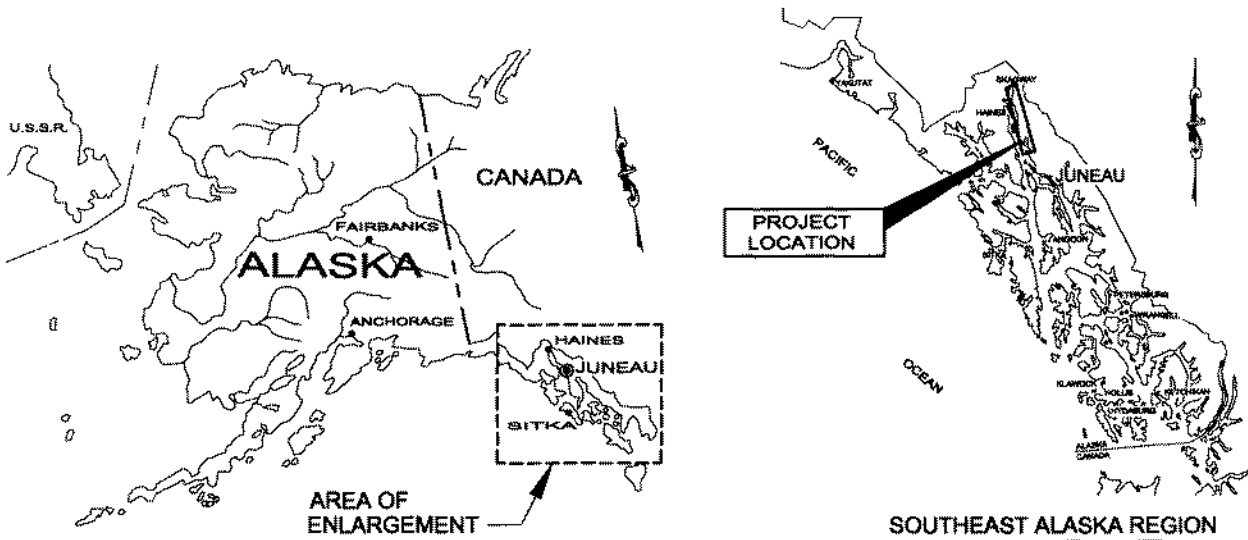
DEPARTMENT OF NATURAL RESOURCES  
OFFICE OF PROJECT MANAGEMENT & PERMITTING

ALASKA COASTAL MANAGEMENT PROGRAM  
302 GOLD STREET, SUITE 202  
JUNEAU, ALASKA 99801-1127  
PHONE: (907) 465-3562/FAX: (907) 465-3075

NOTICE OF APPLICATION  
FOR  
CERTIFICATION OF CONSISTENCY WITH THE  
ALASKA COASTAL MANAGEMENT PROGRAM

Notice is hereby given that a request is being filed with the Office of Project Management and Permitting for a consistency determination, as provided in Section 307(c)(3) of the Coastal Zone Management Act of 1972, as amended [16 U.S.C. 1456(c)(3)], that the project described in the Corps of Engineers Public Notice No. **POA-2006-597-2 (Lynn Canal)**, will comply with the Alaska Coastal Management Program and that the project will be conducted in a manner consistent with that program.

This project is being reviewed for consistency with the Alaska Coastal Management Program (ACMP). Written comments about the consistency of the project with the applicable ACMP statewide standards and district policies must be submitted to the Office of Project Management and Permitting (OPMP). For information about this consistency review, contact OPMP at (907) 269-7470 or (907) 465-3562, or visit the OPMP web site at <http://www.dnr.state.ak.us/opmp/>



PURPOSE OF PROJECT:  
PROPOSED ACCESS ROAD

WATER BODIES:  
LYNN CANAL AND  
BERNERS BAY

## LOCATION AND VICINITY MAPS

ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

## JUNEAU ACCESS IMPROVEMENTS FILE #: POA - 2006 - 597 - 2

AT: JUNEAU, ALASKA & HAINES, ALASKA  
LOCATED IN: T. 31 S. TO T. 37 S. & R. 60 E. TO R. 64 E.

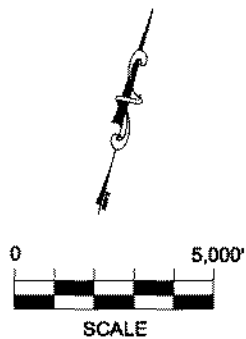
DATE: FEBRUARY, 2006

SHEET 1 OF 33

DOT10120906Juneau\_Access\_2003\ELDRED\_GRID2003.dwg\CorpPermit\corps\_legend.dwg VIEW Legend1

NO SHEETS ARE SHOWN FOR  
AREAS HAVING NO WETLANDS  
OR WATERS OF THE U.S. THAT  
ARE AFFECTED BY THIS PROJECT.

SHEET NUMBERS SHOWN ON  
THIS PLAN REFER TO DETAIL  
PLAN SHEETS 1 THROUGH 72,  
AVAILABLE UPON REQUEST.



BEGIN PROJECT  
STA. 64+20

CASCADE  
POINT  
CASCADE  
PT. ROAD

BERNERS BAY

ECHO COVE

SHEET 13  
SHEET 12, CONT.  
SHEET 12  
SHEET 11  
SHEET 10, CONT.  
SHEET 10  
SHEET 9, CONT.  
SHEET 9  
SHEET 8, CONT.  
SHEET 8  
SHEET 6, CONT.  
SHEET 7  
SHEET 6  
SHEET 5, CONT.  
SHEET 5  
SHEET 4, CONT.  
SHEET 4  
SHEET 3, CONT.  
SHEET 3  
SHEET 2, CONT.  
SHEET 2  
SHEET 1, CONT.  
SHEET 1

SEGMENT 1

**ADJACENT PROPERTY OWNERS:**

1. U.S. FOREST SERVICE
2. GOLDBELT, INC.
3. SEALASKA, CORP.

**WATER BODY:**

BERNERS BAY

**Legend  
Detail Plan  
Sheet Numbers**

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

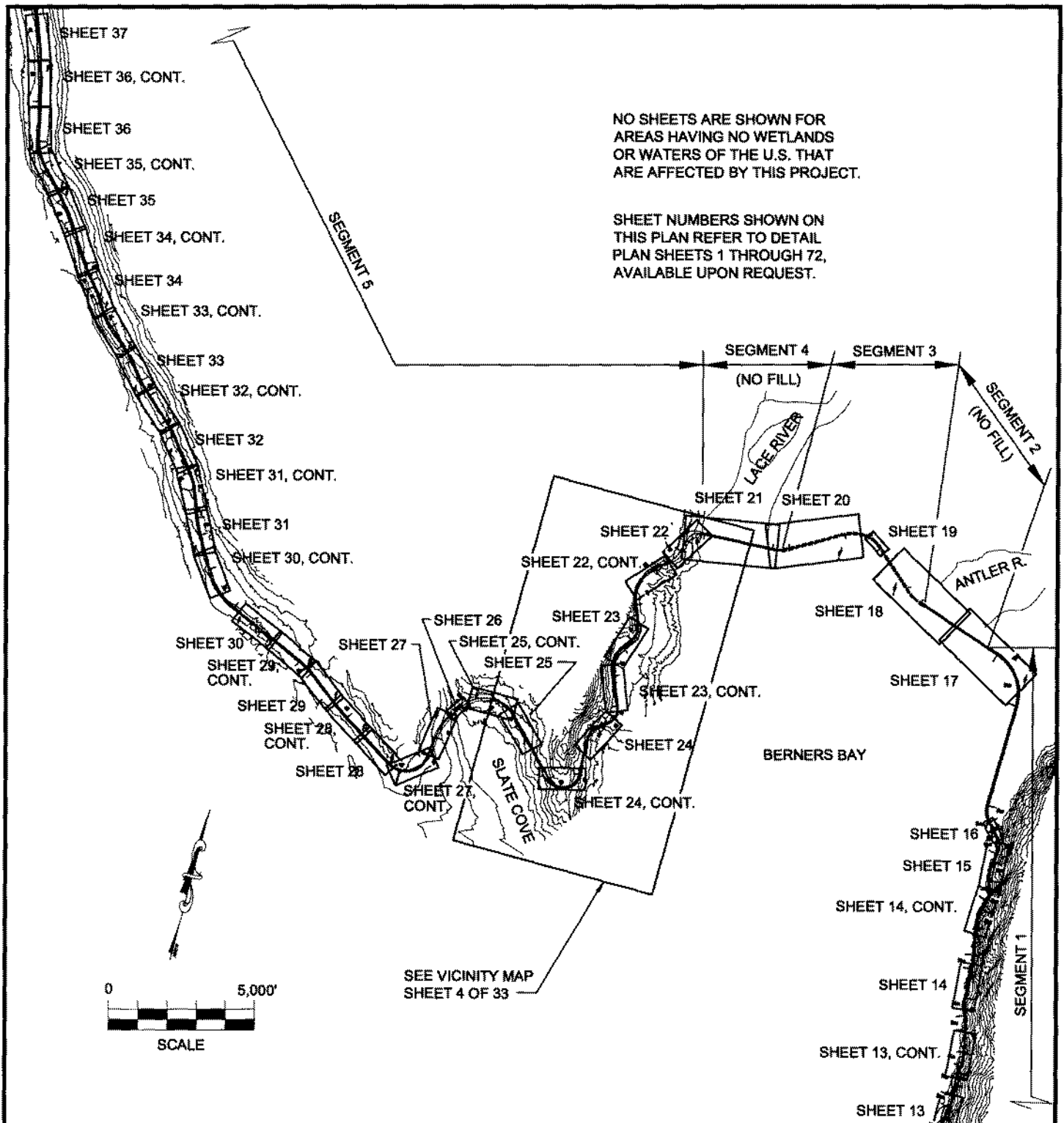
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FILE # : POA - 2006 - 597 - 2

AT: JUNEAU, ALASKA

LOCATED IN: T. 36 S., R. 63 E.,  
T. 37 S., R. 63 E.,  
T. 37 S., R. 64 E.

DATE: FEBRUARY, 2006 SHEET **2** OF **33**

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**ADJACENT PROPERTY OWNERS:**

1. U.S. FOREST SERVICE
2. A.D.N.R.
3. COEUR ALASKA, INC.

**WATER BODY:**

LYNN CANAL, BERNERS BAY

**Legend  
Detail Plan  
Sheet Numbers**

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

**JUNEAU ACCESS IMPROVEMENTS**  
FILE # : POA - 2006 - 597 - 2

AT: JUNEAU, ALASKA

LOCATED IN: T. 36 S., R. 63 E.,  
T. 35 S., R. 63 E.,  
T. 35 S., R. 62 E.

DATE: FEBRUARY, 2006 SHEET **3** OF **33**

NO SHEETS ARE SHOWN FOR  
AREAS HAVING NO WETLANDS  
OR WATERS OF THE U.S. THAT  
ARE AFFECTED BY THIS PROJECT.

SHEET NUMBERS SHOWN ON  
THIS PLAN REFER TO DETAIL  
PLAN SHEETS 1 THROUGH 72,  
AVAILABLE UPON REQUEST.



LYNN CANAL

MET  
POINT

SEGMENT 6

SHEET 47  
SHEET 46, CONT.

SHEET 46  
SHEET 45, CONT.  
SHEET 45

SHEET 44  
SHEET 43, CONT.

SHEET 43  
SHEET 42, CONT.  
SHEET 42

COMET  
BEACH

SHEET 39

SHEET 41  
SHEET 40, CONT.

POINT SHERMAN

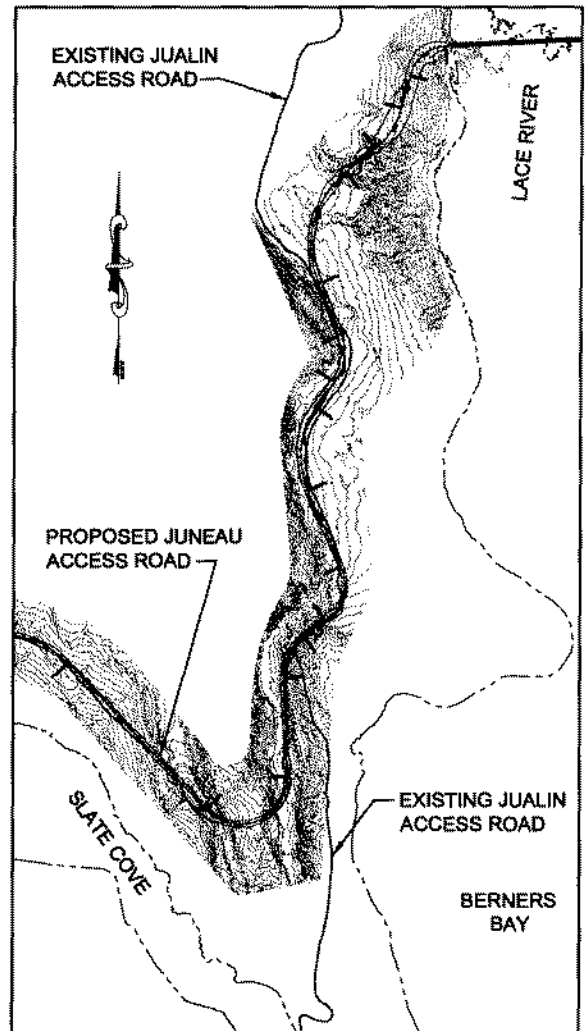
SHEET 40  
SHEET 38, CONT.

SHEET 38

SHEET 37, CONT.

SEGMENT 5

SHEET 51  
SHEET 50, CONT.  
SHEET 50



VICINITY MAP FOR ROADS

ADJACENT PROPERTY OWNERS:

1. U.S. FOREST SERVICE
2. A.D.N.R.
3. COEUR ALASKA, INC.

WATER BODY:

LYNN CANAL

**Legend  
Detail Plan  
Sheet Numbers**

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

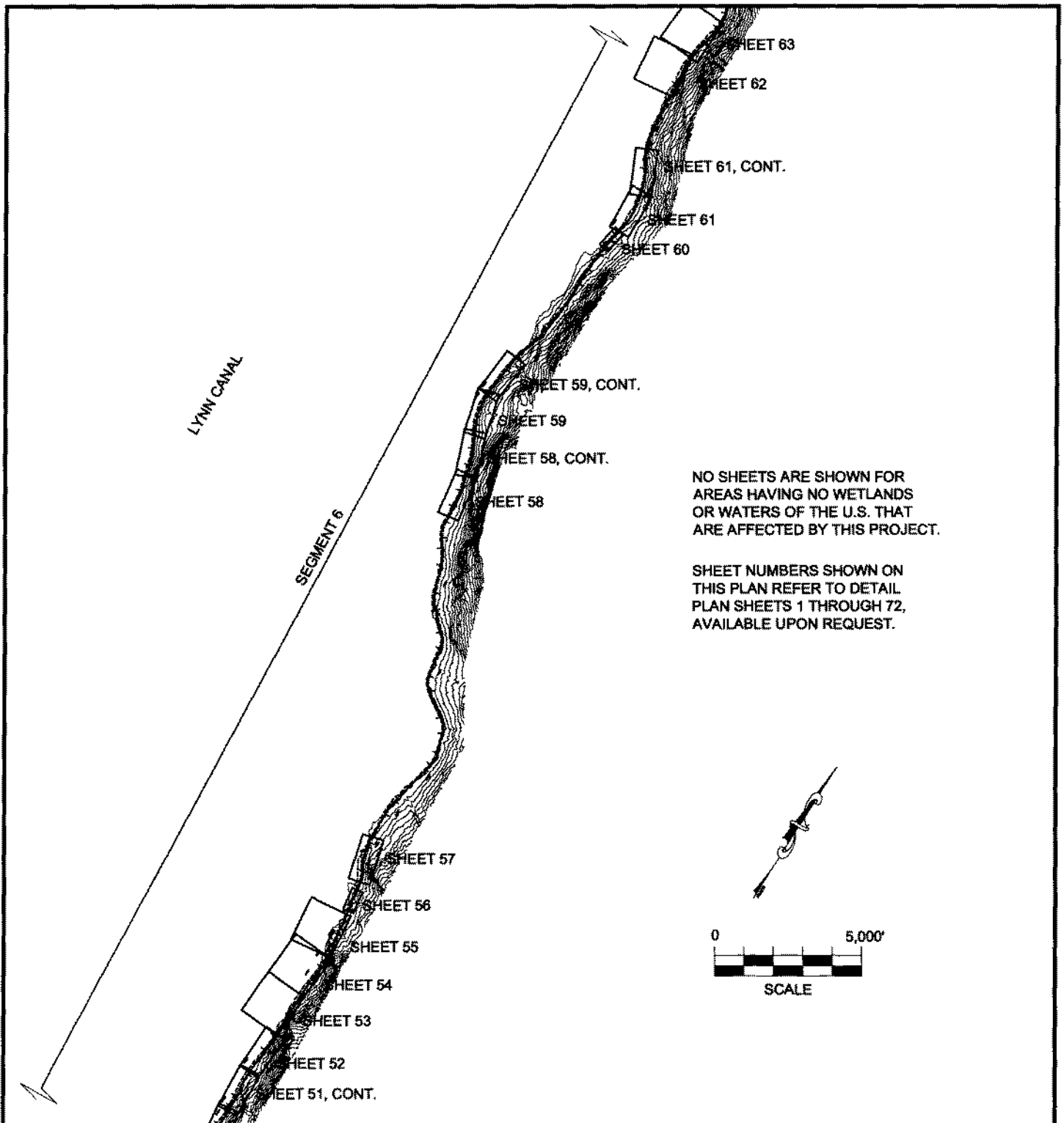
JUNEAU ACCESS IMPROVEMENTS  
FILE #: POA - 2006 - 597 - 2

AT: JUNEAU, ALASKA

LOCATED IN: T. 34 S., R. 61 E.,  
T. 34 S., R. 62 E.,  
T. 35 S., R. 62 E.,  
T. 33 S., R. 61 E.

DATE: FEBRUARY, 2006 SHEET **4** OF **33**

DOT10120905Juneau\_Access\_2003\ELDRED\_GRID2003\dwg\CorpPermit\corps\_legend.dwg VIEW Legend4



**ADJACENT PROPERTY OWNERS:**

1. U.S. FOREST SERVICE
2. A.D.N.R.

**WATER BODY:**

LYNN CANAL

**Legend  
Detail Plan  
Sheet Numbers**

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

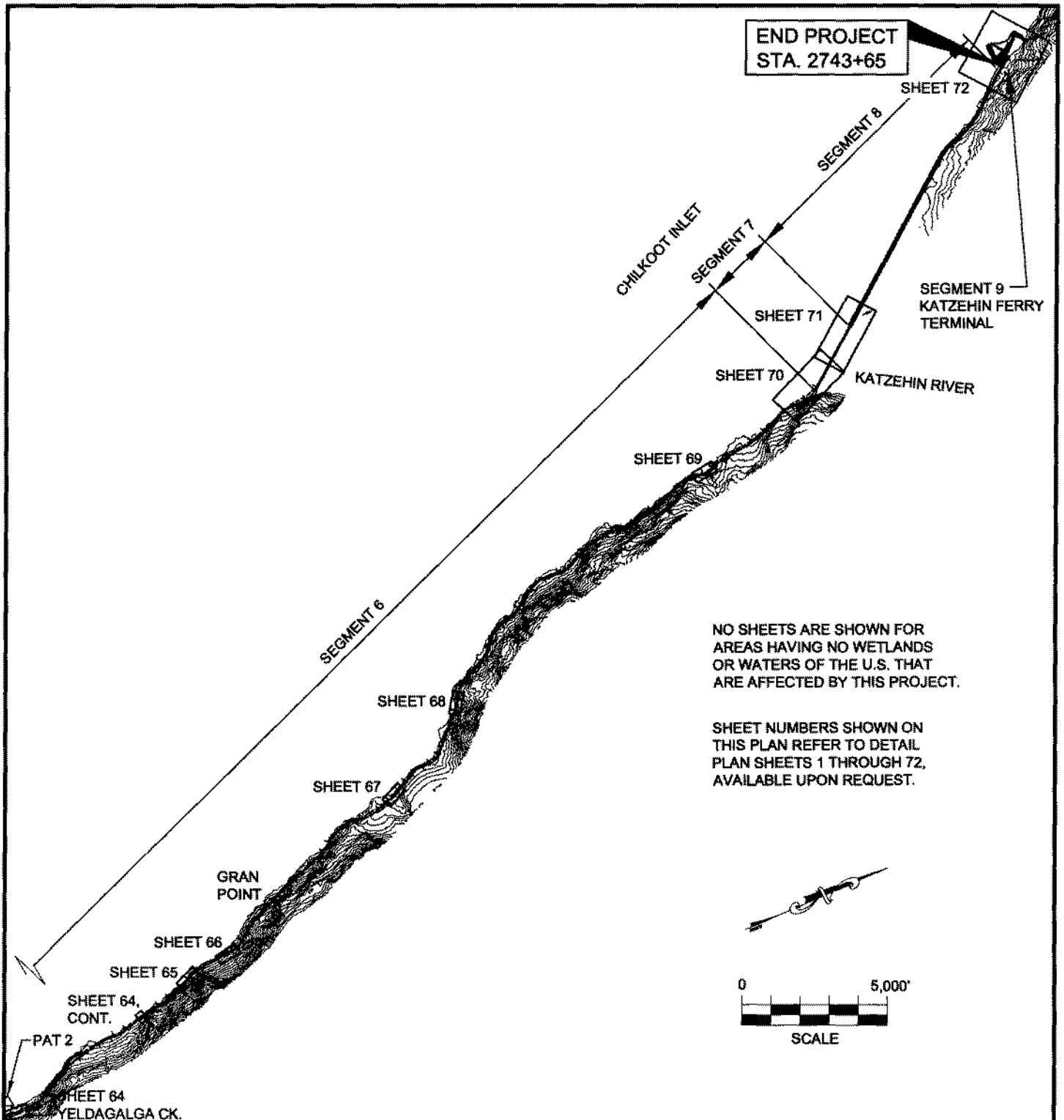
**JUNEAU ACCESS IMPROVEMENTS**  
FILE # : POA - 2006 - 597 - 2

AT: JUNEAU, ALASKA

LOCATED IN: T. 33 S., R. 61 E.,  
T. 32 S., R. 61 E.,

DATE: FEBRUARY, 2006 SHEET **5** OF **33**

DOT10120905Juneau\_Access\_2003\ELDRD\_GRID\2003\dwg\CorpPermit\corps\_legend.dwg VIEW Legend5



ADJACENT PROPERTY OWNERS:

1. U.S. FOREST SERVICE

WATER BODY:

LYNN CANAL

**Legend  
Detail Plan  
Sheet Numbers**

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

**JUNEAU ACCESS IMPROVEMENTS**  
FILE # : POA - 2006 - 597 - 2

AT: JUNEAU, ALASKA

LOCATED IN: T. 32 S., R. 60 E.,  
T. 31 S., R. 60 E.,

DATE: FEBRUARY, 2006 SHEET **6** OF **33**

WATER BODIES:  
LYNN CANAL AND BERNERS BAY

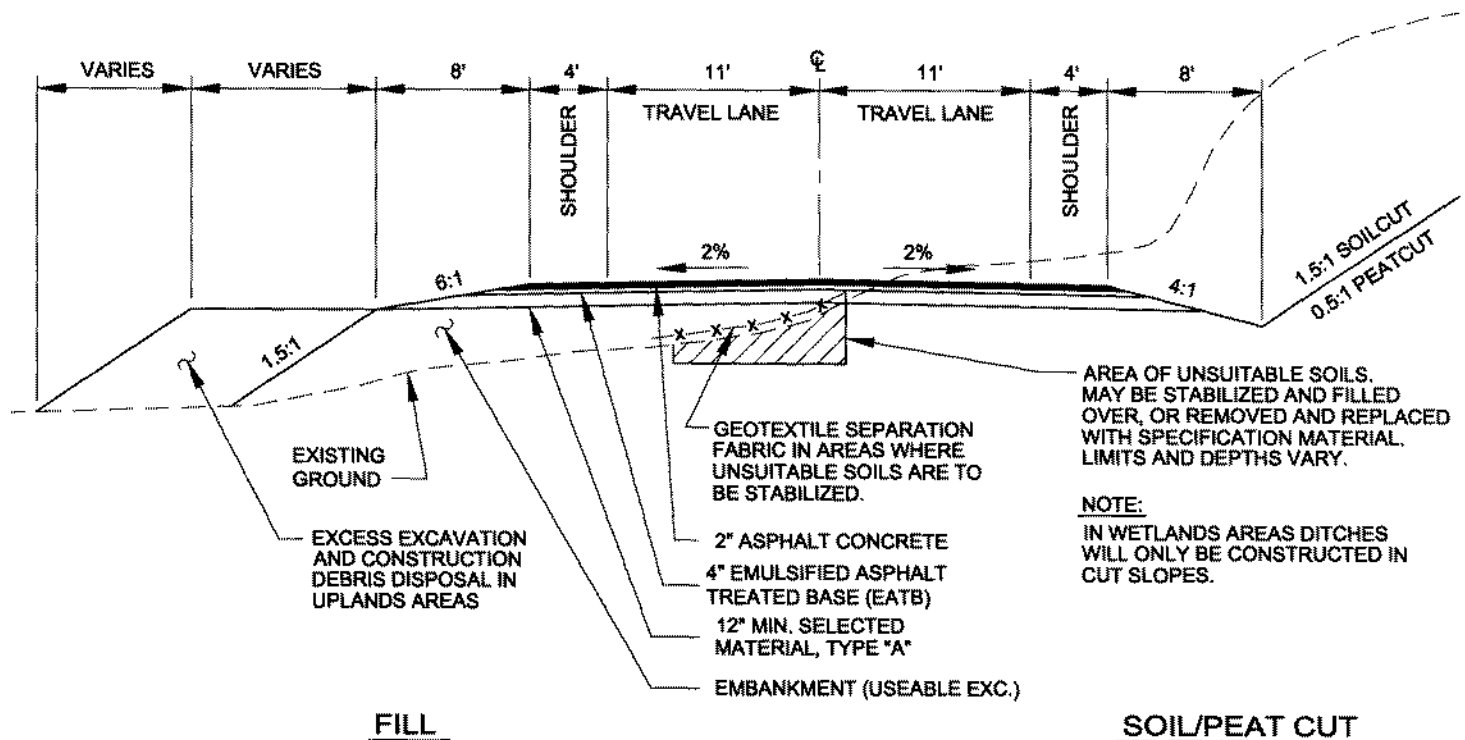
ADJACENT PROPERTY OWNERS:  
1. U.S. FOREST SERVICE AND  
OTHERS, VARIES

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

## Typical Roadway Section

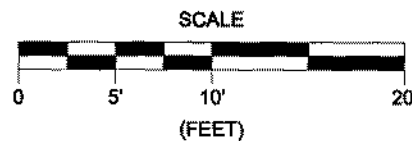
JUNEAU ACCESS IMPROVEMENTS  
FILE #: POA - 2006 - 597 - 2  
AT: JUNEAU, ALASKA  
LOCATED IN: SOUTHEAST ALASKA

DATE: FEBRUARY, 2008 SHEET **7** OF **33**

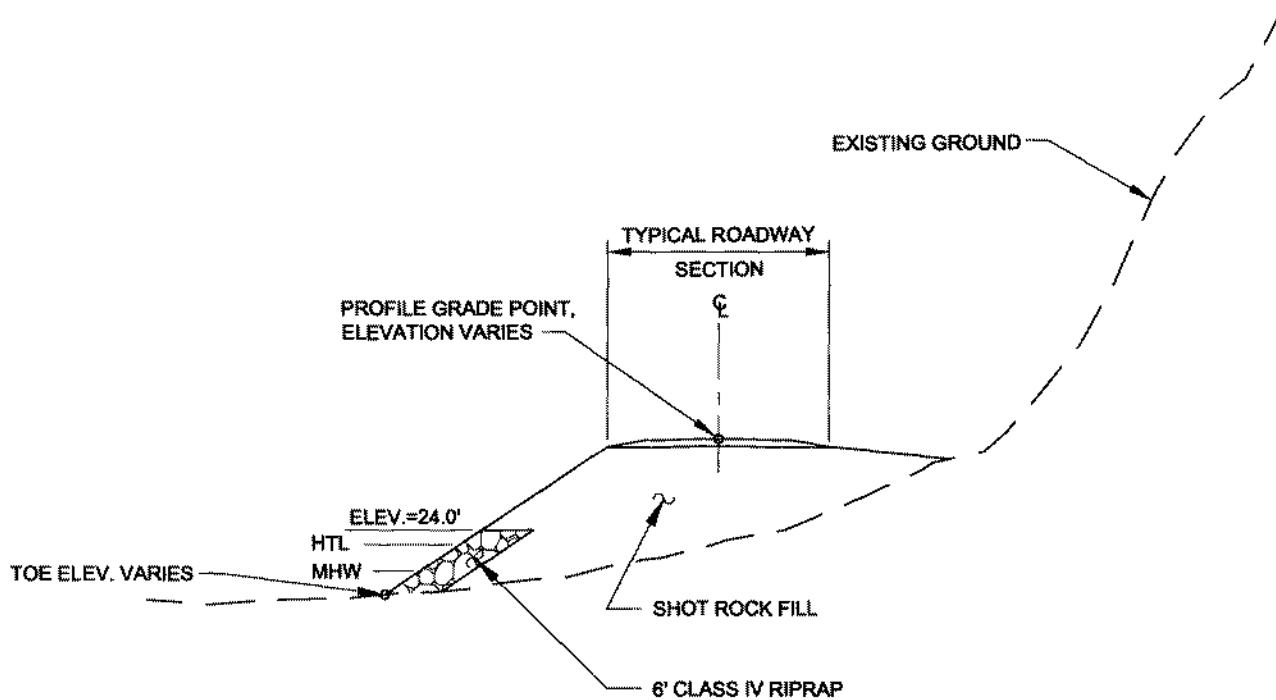


## TYPICAL ROADWAY SECTION

CUT AND FILL TYPICAL BOTH SIDES OF ROADWAY







## TIDELANDS FILL TYPICAL

### NOTE:

FOR ALL DRAWINGS:

HIGH TIDE LINE (HTL) = 21.0'

MEAN HIGH WATER (MHW) = 15.6'

MEAN LOWER LOW WATER (MLLW) = 0.0'

### ADJACENT PROPERTY OWNERS:

1. U.S. FOREST SERVICE AND OTHERS, VARIES.

### WATER BODIES:

LYNN CANAL

## **Tidelands Fill Typical**

### APPLICATION BY:

ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

### JUNEAU ACCESS IMPROVEMENTS

FILE # : POA - 2006 - 597 - 2

AT: JUNEAU, ALASKA

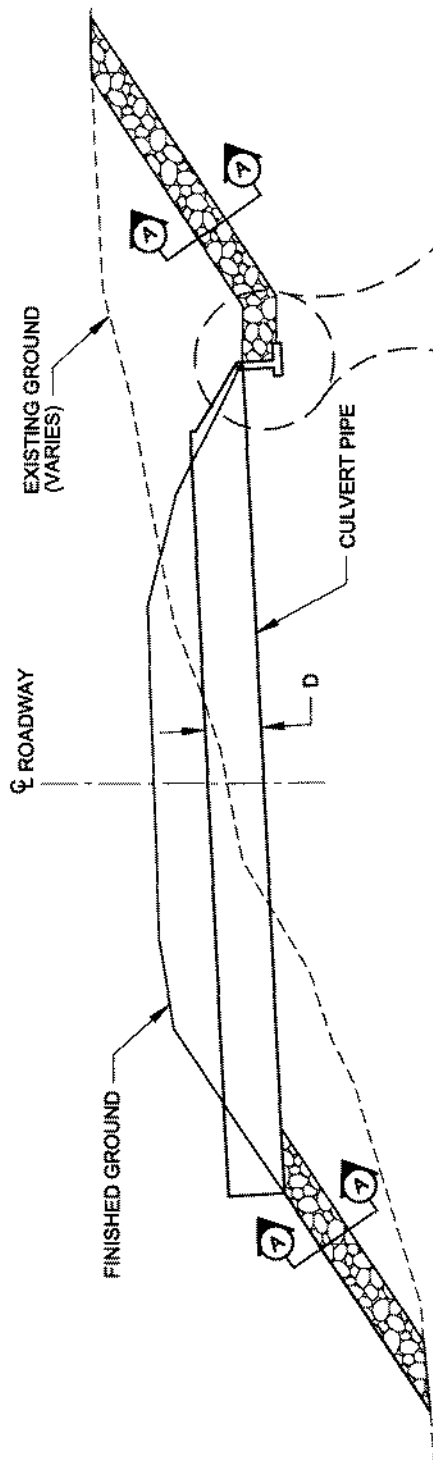
LOCATED IN: SOUTHEAST ALASKA

DATE: FEBRUARY, 2006

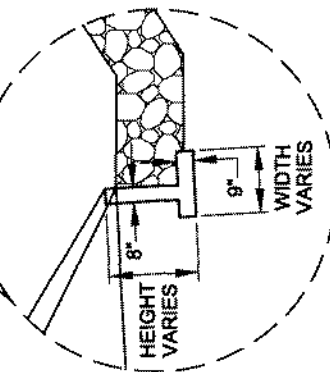
SHEET **8** OF **33**



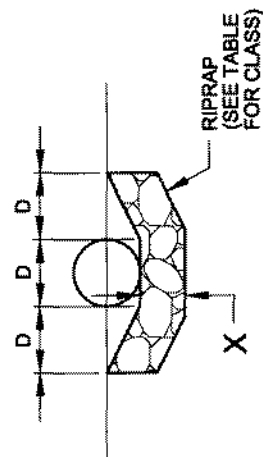




**ROADWAY SECTION**



**CONCRETE HEADWALL**



D = PIPE DIAMETER OR  
EXISTING STREAM WIDTH

**SECTION "A-A"**

PIPE DIA.	X	RIPRAP SIZE
24"	1.5'	CLASS I
36"	1.5'	CLASS I
48"	3.0'	CLASS II
60"	3.0'	CLASS II
72"	4.0'	CLASS III

**ADJACENT PROPERTY OWNERS:**

1. U.S. FOREST SERVICE AND  
OTHERS, VARIES.

**WATER BODIES:**

LYNN CANAL

**Rock Flume  
Details**

**APPLICATION BY:**

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AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

**JUNEAU ACCESS IMPROVEMENTS**

FILE # : POA - 2006 - 597 - 2

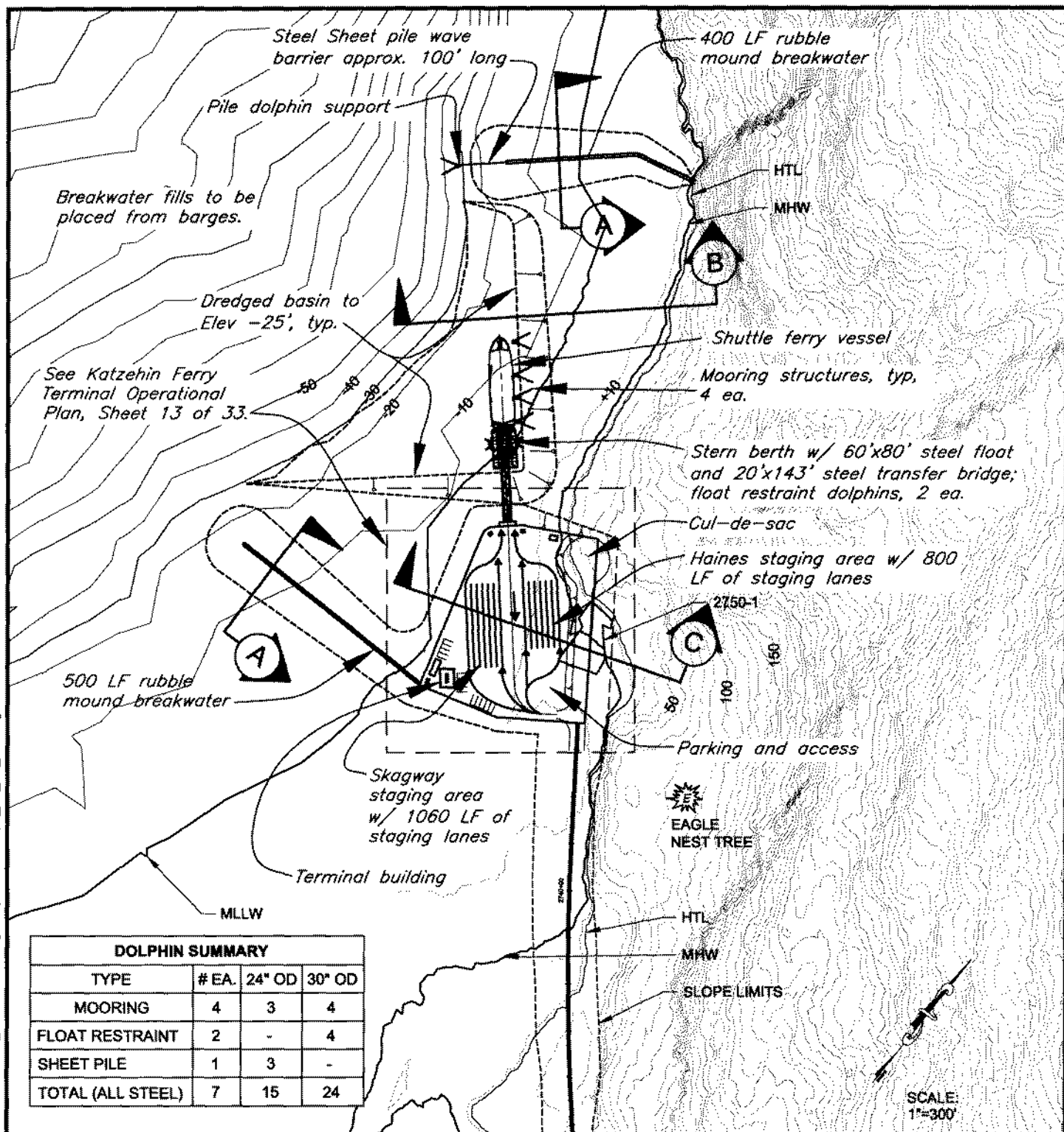
AT: JUNEAU, ALASKA

LOCATED IN: SOUTHEAST ALASKA

DATE: FEBRUARY, 2006

SHEET **11** OF **33**

DOT10120905\Juneau\_Access\_2003\ELDRED\_GRID2003.dwg\CompPermitcorps\_02\_15\_06.dwg VIEW P-77



ADJACENT PROPERTY OWNERS:

1. U.S. FOREST SERVICE
2. D.N.R.

WATER BODY:

LYNN CANAL

## Katzehin Ferry Terminal Layout

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

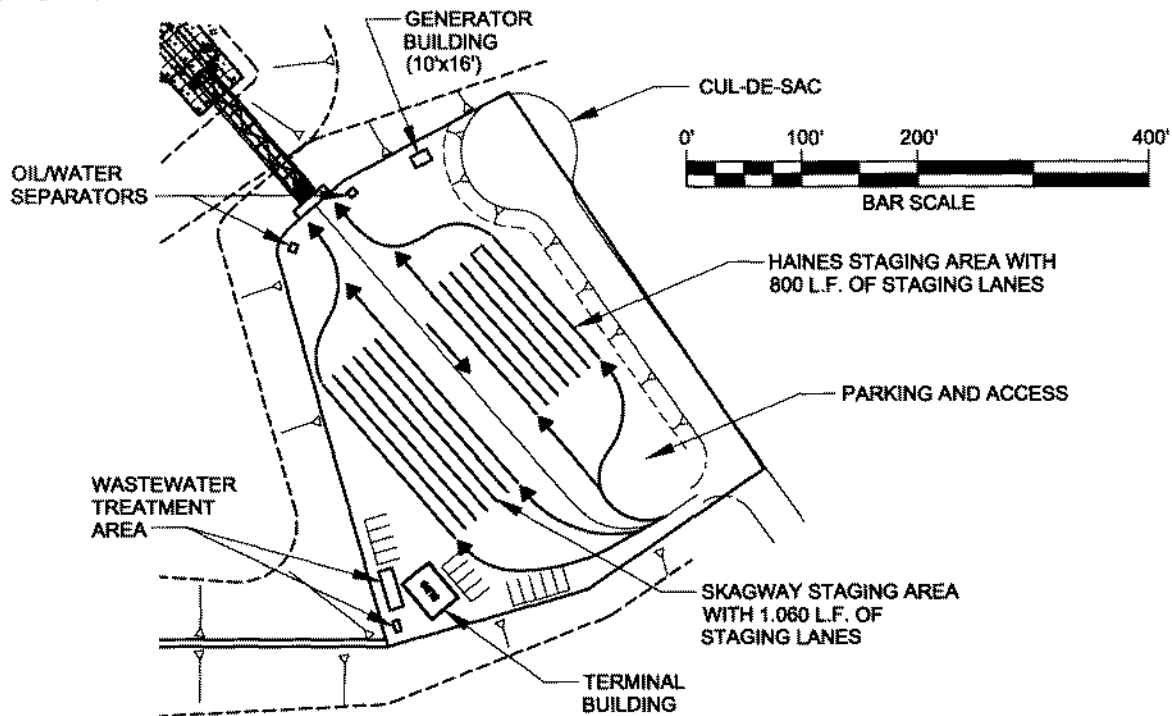
JUNEAU ACCESS IMPROVEMENTS  
FILE #: POA - 2006 - 597 - 2

AT: JUNEAU, ALASKA

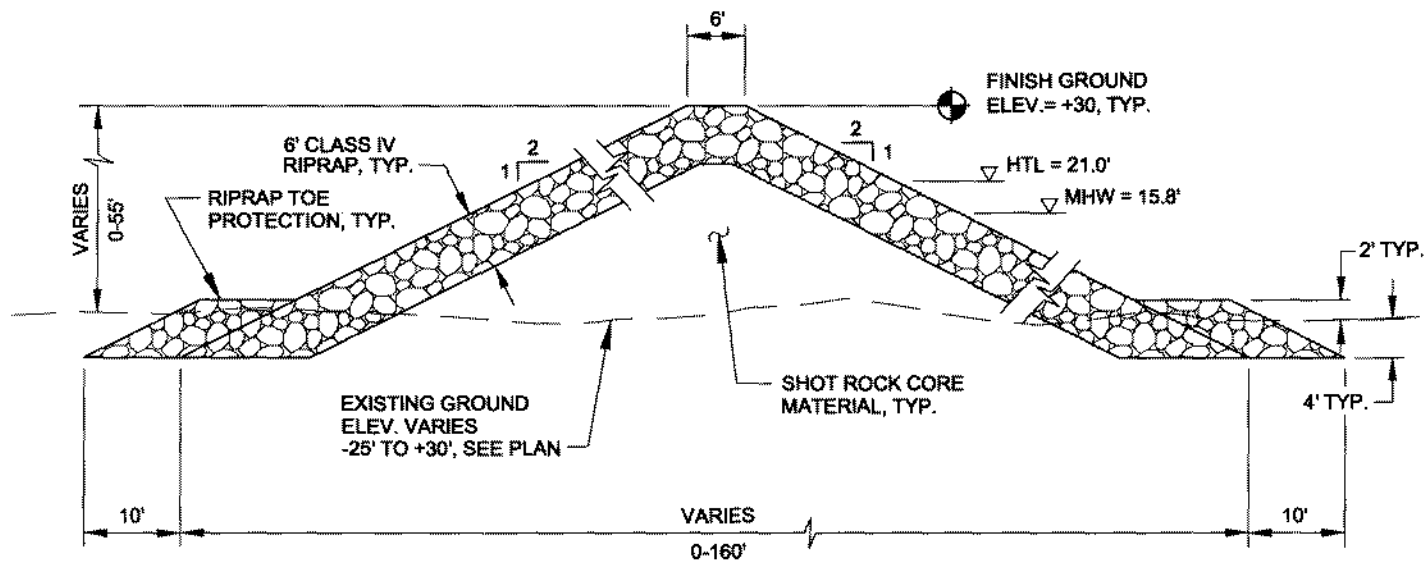
LOCATED IN: T. 31 S., R. 60 E., SECT. 4, C.R.M.

DETAIL PLAN SHEETS  
DATE: FEBRUARY, 2006

SHEET **12** OF **33**



## KATZEHIN FERRY TERMINAL OPERATIONAL PLAN



## TYPICAL SECTION RUBBLE MOUND BREAKWATER HIGH TIDE LINE = 21'

### ADJACENT PROPERTY OWNERS:

1. U.S. FOREST SERVICE AND OTHERS, VARIES.

### WATER BODIES:

LYNN CANAL

### Typical Section

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

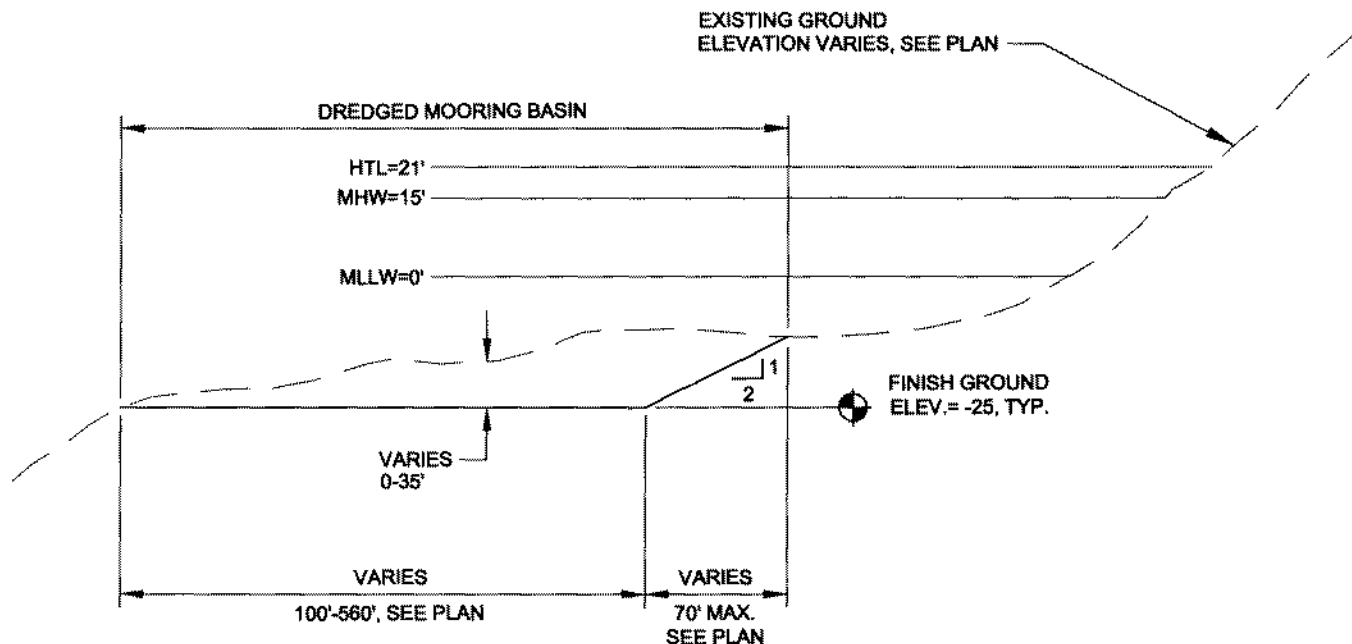
### JUNEAU ACCESS IMPROVEMENTS

FILE # : POA - 2006 - 597 - 2

AT: JUNEAU, ALASKA

LOCATED IN: SOUTHEAST ALASKA

DATE: DECEMBER, 2005 SHEET **13** OF **33**



**B**  
12 **TYPICAL SECTION  
DREDGED MOORING SECTION**

**ADJACENT PROPERTY OWNERS:**

1. U.S. FOREST SERVICE AND OTHERS, VARIES.

**WATER BODIES:**

LYNN CANAL

**Typical Section**

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

**JUNEAU ACCESS IMPROVEMENTS**

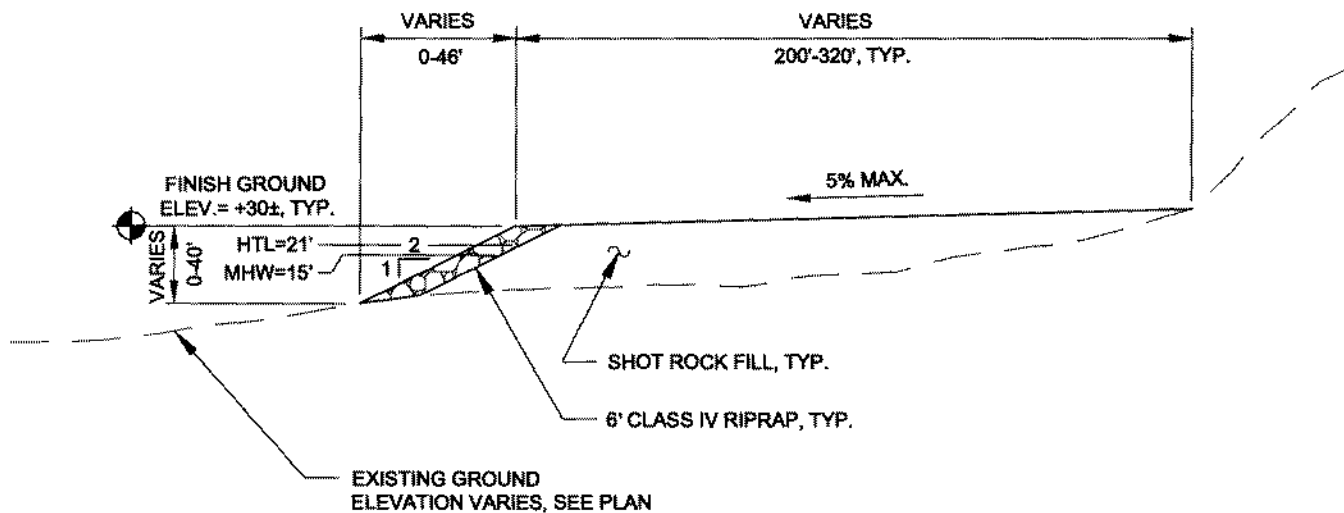
FILE # : POA - 2006 - 597 - 2

AT: JUNEAU, ALASKA

LOCATED IN: SOUTHEAST ALASKA

DATE: FEBRUARY, 2006

SHEET **14** OF **33**



C  
12
**TYPICAL SECTION  
TERMINAL & STAGING AREA FILL**

**ADJACENT PROPERTY OWNERS:**

1. U.S. FOREST SERVICE AND OTHERS, VARIES.

**WATER BODIES:**

LYNN CANAL

**Typical Section**

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

**JUNEAU ACCESS IMPROVEMENTS**

FILE # : POA - 2006 - 597 - 2

AT: JUNEAU, ALASKA

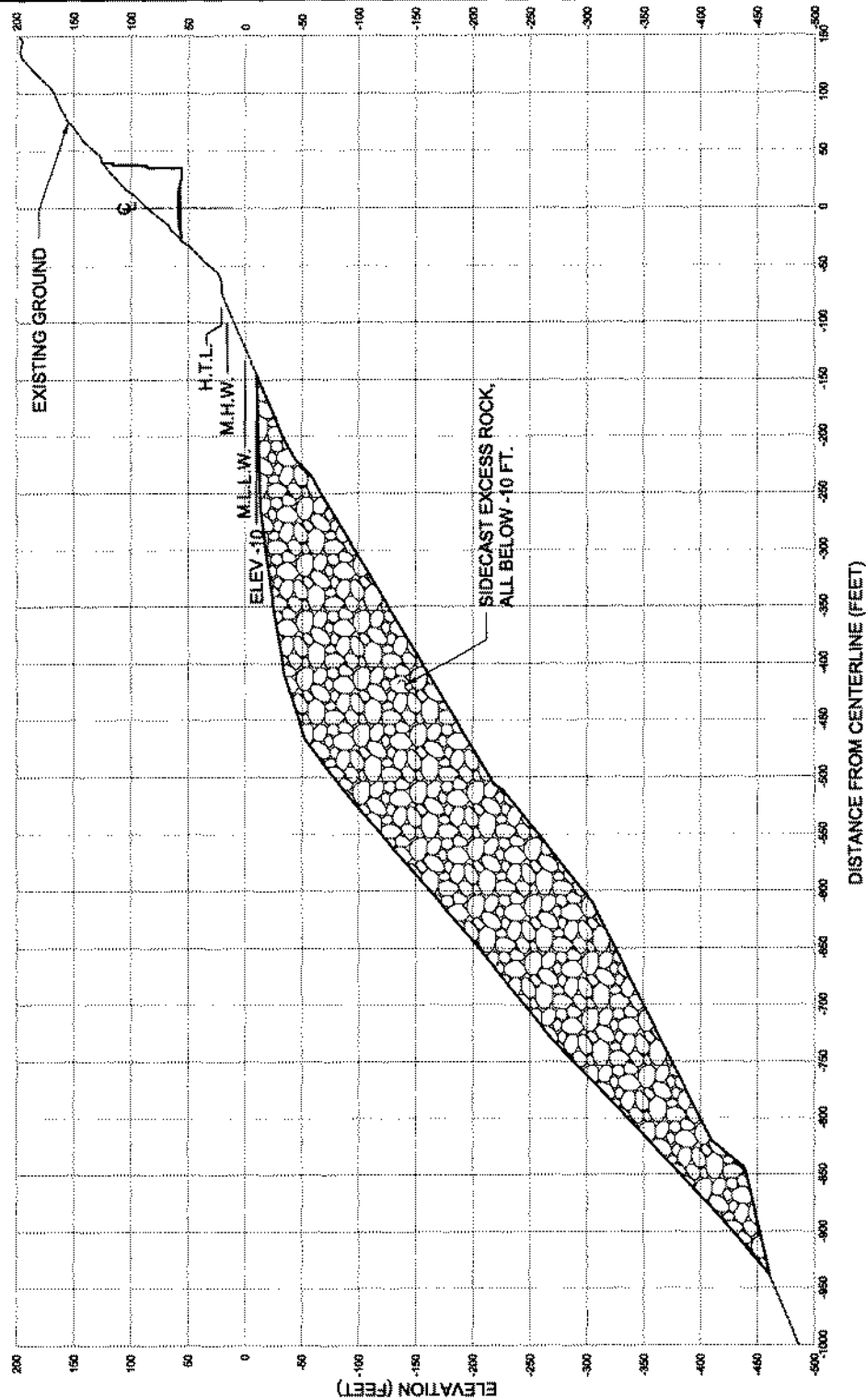
LOCATED IN: SOUTHEAST ALASKA

DATE: FEBRUARY, 2006

SHEET **15** OF **33**



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### DEEP WATER SIDECAST AREA STA. 1717+00

TYPICAL OF STA. 1715+00 TO STA. 1764+00 WHERE  
HIGHWAY SLOPE IS IN UPLANDS.

#### ADJACENT PROPERTY OWNERS:

1. U.S. FOREST SERVICE AND  
OTHERS, VARIES

#### WATER BODIES:

LYNN CANAL

## **Deep Water Sidecast Area Typical**

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

#### JUNEAU ACCESS IMPROVEMENTS

FILE #: POA - 2006 - 597 - 2

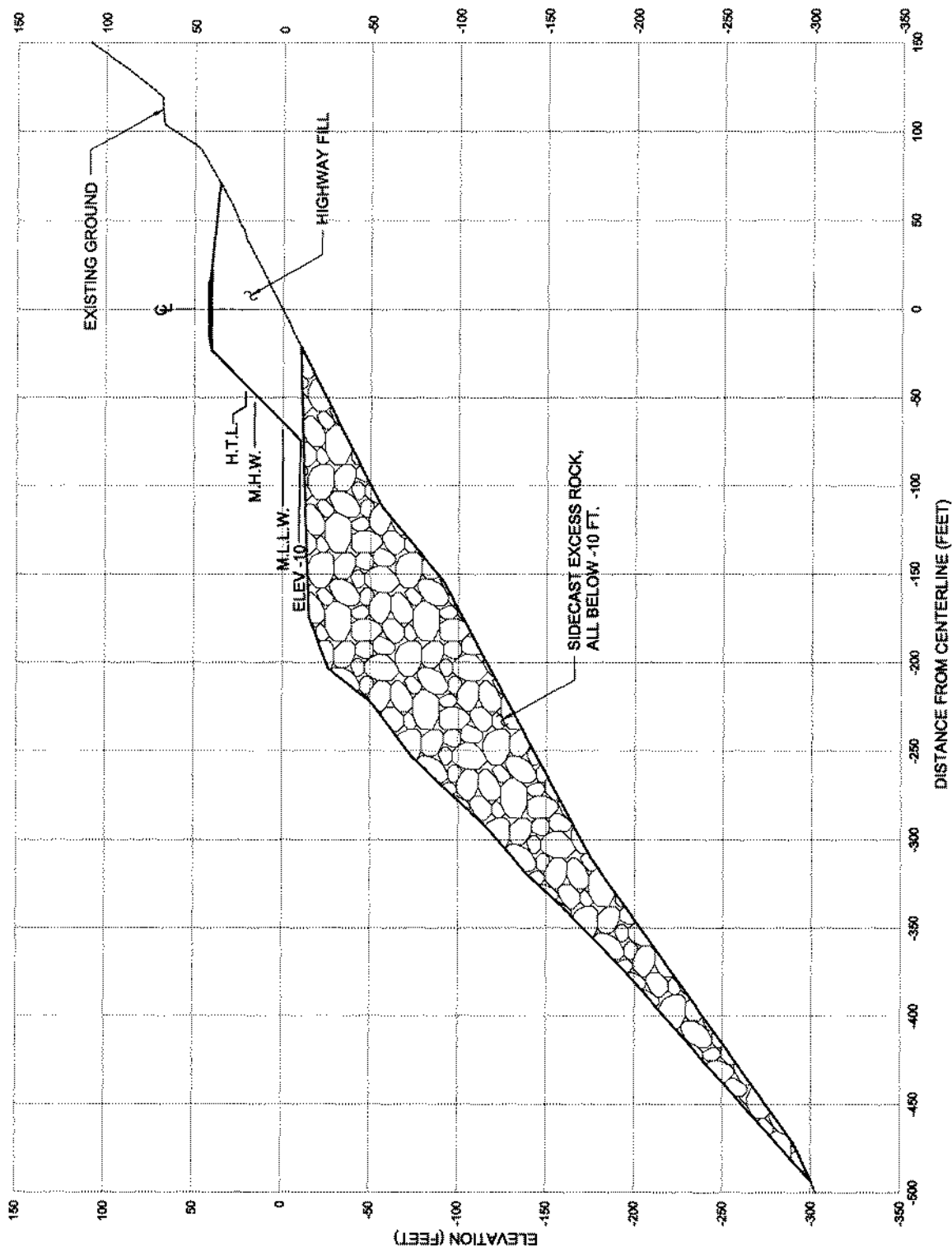
AT: JUNEAU, ALASKA

LOCATED IN: SOUTHEAST ALASKA

DATE: FEBRUARY, 2006

SHEET **16** OF **33**

\\dot10120806\Juneau\_Access\_2006\Drawings\Comp\Typical\TYPICALS\_8-19-05.DWG



### DEEP WATER SIDECAST AREA STA. 1732+00

TYPICAL OF STA. 1715+00 TO STA. 1764+00 WHERE  
HIGHWAY SLOPE IS BELOW HTL.

#### ADJACENT PROPERTY OWNERS:

1. U.S. FOREST SERVICE AND  
OTHERS, VARIES

#### WATER BODIES:

LYNN CANAL

## **Deep Water Sidecast Area Typical**

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

#### JUNEAU ACCESS IMPROVEMENTS

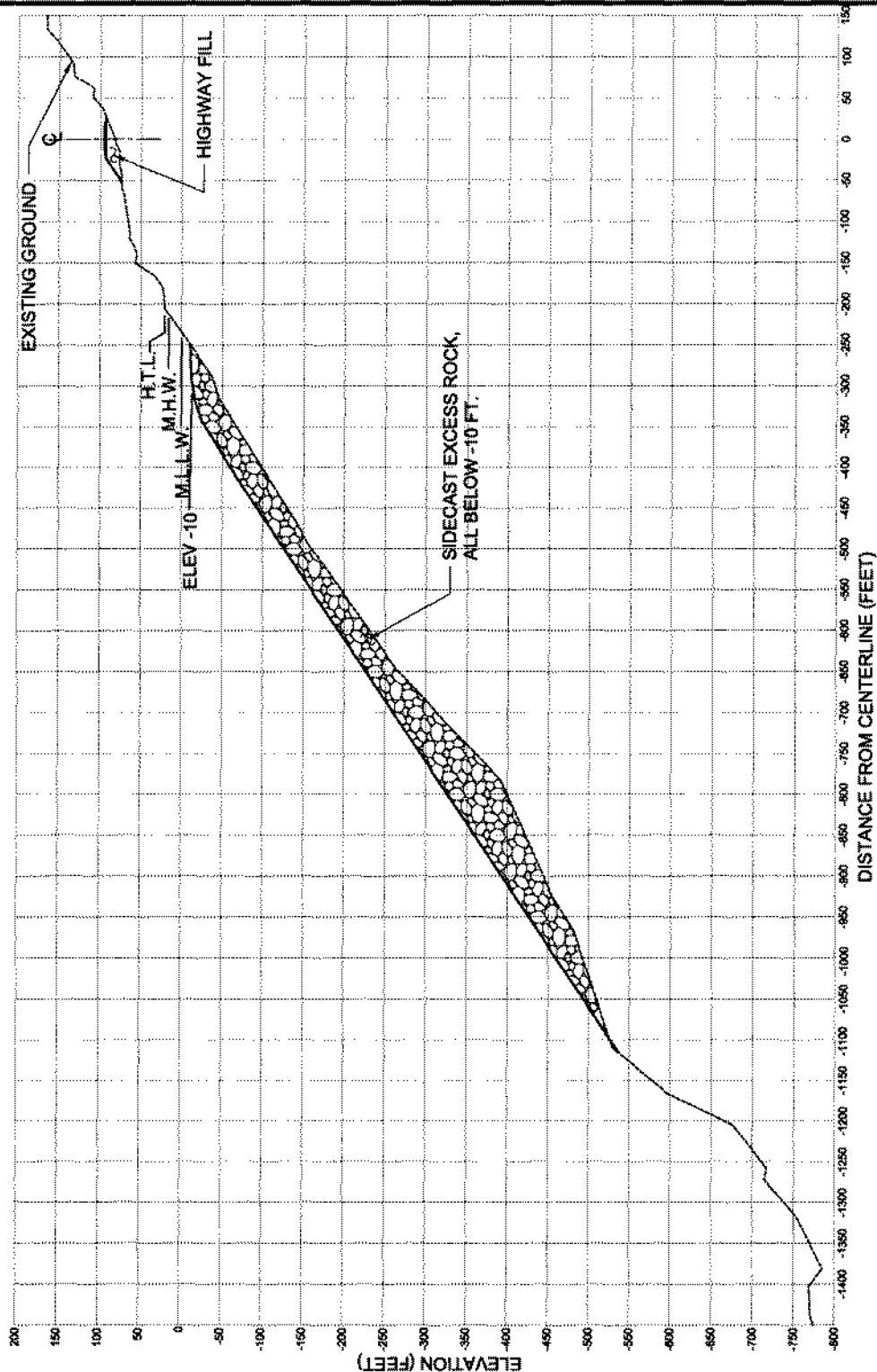
FILE # : POA - 2006 - 597 - 2

AT: JUNEAU, ALASKA

LOCATED IN: SOUTHEAST ALASKA

DATE: FEBRUARY, 2006

SHEET **17** OF **33**



## DEEP WATER SIDECAST AREA STA. 2081+00

TYPICAL OF STA. 2080+00 TO STA. 2110+00 WHERE  
HIGHWAY SLOPE IS IN UPLANDS.

SIDECAST EXCESS ROCK TO BE PLACED FROM BARGES.

### ADJACENT PROPERTY OWNERS:

1. U.S. FOREST SERVICE AND  
OTHERS, VARIES

### WATER BODIES:

LYNN CANAL

## Deep Water Sidecast Area Typical

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

### JUNEAU ACCESS IMPROVEMENTS

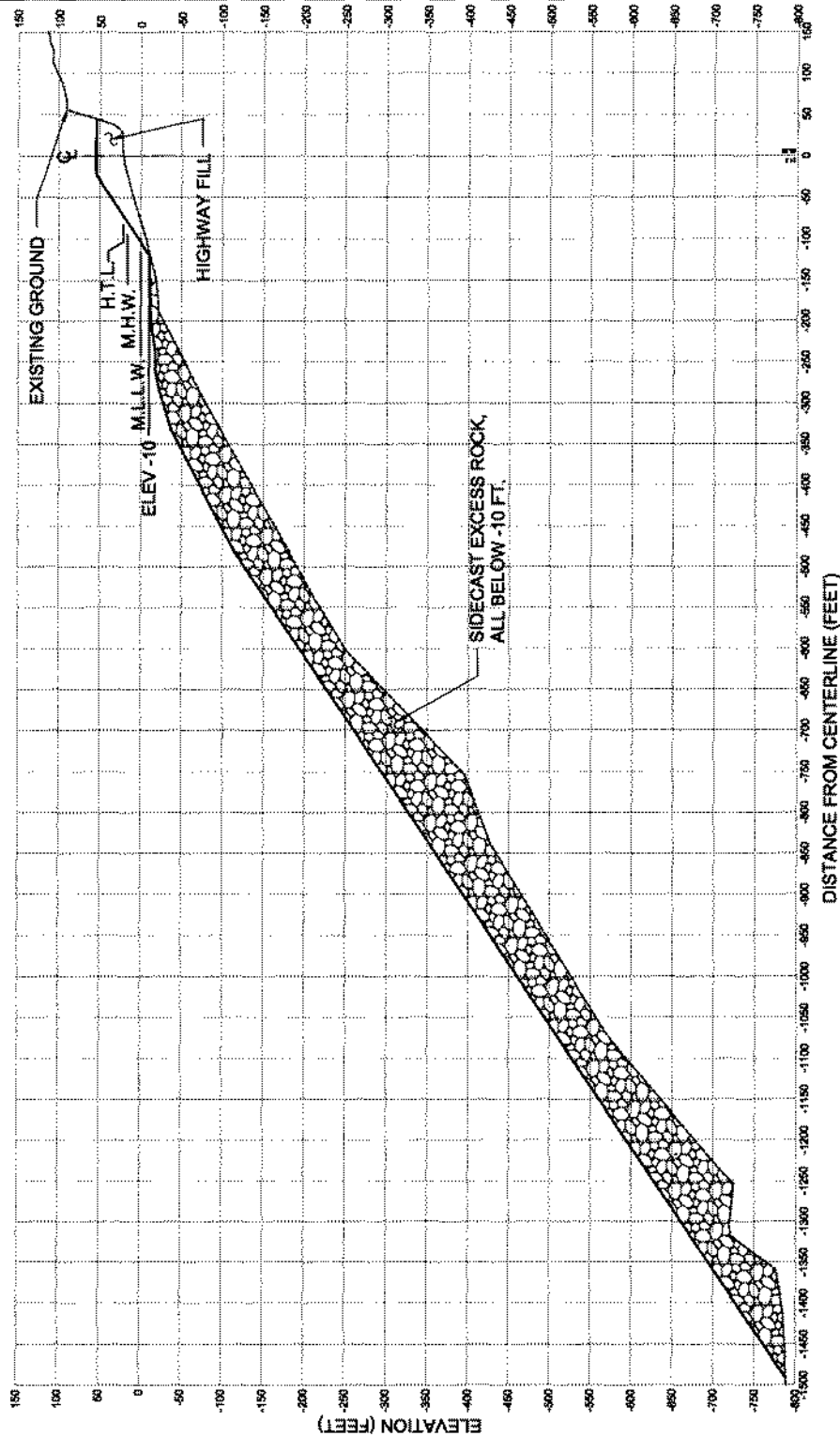
FILE # : POA - 2006 - 597 - 2

AT: JUNEAU, ALASKA

LOCATED IN: SOUTHEAST ALASKA

DATE: FEBRUARY, 2006

SHEET **18** OF **33**



# **DEEP WATER SIDECAST AREA STA. 2090+00**

TYPICAL OF STA. 2080+00 TO STA. 2110+00 WHERE

HIGHWAY SLOPE IS BELOW HTL.

SIDECAST EXCESS ROCK TO BE PLACED FROM BARGES.

## **ADJACENT PROPERTY OWNERS:**

1. U.S. FOREST SERVICE AND  
OTHERS, VARIES

## **WATER BODIES:**

LYNN CANAL

## **Deep Water Sidecast Area Typical**

APPLICATION BY:

ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

## **JUNEAU ACCESS IMPROVEMENTS**

FILE # : POA - 2006 - 597 - 2

AT: JUNEAU, ALASKA

LOCATED IN: SOUTHEAST ALASKA

DATE: FEBRUARY, 2006

SHEET **19** OF **33**

# WETLANDS FILL AREAS

SHEET(S)	ID	STATION	TO	STATION	LENGTH (FT.)	TYPE	FILL IMPACT			** EXCAVATION IMPACT		TOTAL IMPACT	
							S.F.	ACRES	VOL. (C.Y.)	S.F.	ACRES	S.F.	ACRES
1	115-1	69+90		72+40	250	PFO4B	3434	0.08	600	2197	0.05	5630	0.13
2	135-1	91+00		93+05	205	PFO4B	2885	0.07	200	1063	0.02	3948	0.09
2	150-1	98+80		106+50	770	PFO4B	10966	0.25	1400	11945	0.27	22911	0.53
2	165-1	109+45		115+67	622	PFO4B	5618	0.13	500	6703	0.15	12321	0.28
2	165-1	119+07		122+64	357	PFO4B	9351	0.21	2000	0	0.00	9351	0.21
3	165-1	136+95		140+19	324	PFO4B	3873	0.09	500	477	0.01	4349	0.10
3	190-1	144+10		145+45	135	PFO4B	1146	0.03	50	182	0.00	1328	0.03
3	195-1	149+30		150+37	107	PFO4B	1201	0.03	100	0	0	1201	0.03
4	235-1	190+50		195+10	460	PFO4B	1799	0.04	800	6146	0.14	7945	0.18
6	340-1	294+20		299+25	505	PSS1B/PFO4B	20352	0.47	1400	12071	0.28	32422	0.74
10	415-1	368+30		388+90	2060	PFO4B	112683	2.59	39500	61997	1.42	174680	4.01
17	680-2	632+60		641+00	840	PFO1A	64369	1.48	30250	0	0	64369	1.48
20	735-4	703+08		705+21	213	PFO1A/PSS1A	1078	0.02	600	0	0	1078	0.02
20	735-4	708+03		710+44	241	PFO1A/PSS1A	10113	0.23	3800	0	0	10113	0.23
20	735-4	716+21		727+42	1121	PFO1A/PSS1A	84245	1.93	31000	0	0	84245	1.93
22	800-1	749+85		755+14	529	PFO4B	3471	0.08	300	41937	0.96	45408	1.04
25	895-1	878+90		902+89	2399	PFO4B	111794	2.57 *	20400 *	125254	2.88	237048	5.44
26	910-2	905+62		908+18	256	PFO4B	8089	0.19	500	28110	0.65	36198	0.83
26-30	955-2	910+90		1014+19	10329	PFO4B	609990	14.00	129300	181230	4.16	791220	18.16
30-32	955-2	1027+46		1075+80	4834	PFO4B	316851	7.27	86300	49838	1.14	366688	8.42
32-33	955-2	1076+99		1112+87	3588	PFO4B	197601	4.54	36700	42566	0.98	240167	5.51
33	955-2	1116+79		1127+97	1118	PFO4B	82564	1.90	29700	3187	0.07	85750	1.97
33-34	1185-1	1127+97		1159+58	3161	PFO4B/PSS1B	197718	4.54	53700	31503	0.72	229221	5.26
35	1185-1	1164+79		1174+99	1020	PFO4B/PSS1B	79887	1.83	25900	1169	0.03	81056	1.86
35-36	1185-1	1177+73		1194+30	1657	PFO4B/PSS1B	114684	2.63	31300	5481	0.13	120165	2.76
36	1185-1	1195+17		1203+41	824	PFO4B/PSS1B	45408	1.04	7000	5817	0.13	51225	1.18
36	1220-1	1205+77		1217+14	1137	PFO4B/PSS1B	95361	2.19	43300	0	0.00	95361	2.19
36	1220-1	1219+36		1220+75	139	PFO4B/PSS1B	12326	0.28	5300	0	0.00	12326	0.28
37-38	1260-1	1248+55		1260+39	1184	PFO4B/PSS4B	85933	1.97	26300	0	0.00	85933	1.97
38	1275-1	1264+24		1272+60	836	PFO4B	53855	1.24	12100	0	0.00	53855	1.24
42	1360-1	1359+00		1365+62	682	PFO4B	33899	0.78	5300	7841	0.18	41739	0.96
43	1375-1	1373+16		1377+28	412	PFO4B	12218	0.28	800	13762	0.32	25980	0.60
72	2750-1	FERRY TERMINAL				E2EM1N	8917	0.20	1600	0	0	8917	0.20
TOTAL FILL IMPACT =							55.18	628500					
							** TOTAL EXCAVATION IMPACT =		14.70				
							TOTAL IMPACT =		69.88				

\* Includes 2.4 C.Y., 66 S.F. ditch block (See sheet 25 of 72 for location)

"ID" refers to wetland identification numbers in Wetland Report, Appendix O, of the Final EIS, also found on detail sheets, e.g., ID 115-1 is found on sheet 1 of 72.

\*\* The excavation impacts are outside of the fill impacts.

## ADJACENT PROPERTY OWNERS:

1. U.S. FOREST SERVICE AND OTHERS, VARIES

## WETLANDS SUMMARY

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

## JUNEAU ACCESS IMPROVEMENTS FILE#: POA-2006-597-2

AT: JUNEAU, ALASKA

DATE: FEBRUARY, 2006 SHEET **20** OF **33**

# FILL BELOW HIGH TIDE LINE (21.0')

SHEET(S)	SURVEY #	STATION	TO	STATION	LENGTH (FT.)	FILL				COMMENTS AND CONSTRAINTS
						S.F.	ACRES	VOL - C.Y.		
								↓ 21.0'	↑ 21.0' *	
44	N/A	1441+20		1442+19	40	670	0.01	100	0	Riprap slope protection down to elev. 19.7'
45-46	EIT-36	1474+54		1506+25	111	219281	5.03	42000	85300	Fill catches at elev. -6.0' at lowest point, 3 - avalanche zones and steep terrain
49	EIT-35	1553+11		1558+67	83	31266	0.72	7200	14300	Fill catches at elev. 9.3' at lowest point, eagle tree and very steep terrain
50	EIT-28	1642+21		1643+84	106	1975	0.05	500	5100	Fill catches at elev. 18.8' at lowest point, 2- eagle trees and very steep terrain
50	EIT-26	1655+30		1672+14	61	50153	1.15	10000	8300	Fill catches at elev. -4.0' at lowest point, 3 - eagle nests, an avalanche zone and very steep terrain
51-52	EIT-25	1672+14		1704+60	106	202207	4.64	33000	99600	Fill catches at elev. -10.0' - at lowest point, 3 - eagle nests, an avalanche zone and very steep terrain
52	EIT-24	1705+63		1708+04	70	4574	0.11	2100	900	Fill catches at elev. 21.0' at lowest point, avalanche zone and very steep terrain
53	STN-3	1719+32		1721+57	91	1903	0.04	4400	5200	Fill catches at elev. -7.0' at lowest point. At the base of very steep terrain
53-54	EIT-23	1728+50		1736+13	71	66131	1.52	12000	41400	Fill catches at elev. -40.0' at lowest point, eagle tree, avalanche zones and very steep terrain
54	STN-4	1737+72		1742+14	91	10293	0.24	1500	2300	Fill catches at elev. 14.0 at lowest point, eagle tree, avalanche zones and very steep terrain
57	EIT-22	1776+48		1784+20	76	47109	1.08	10000	44400	Fill catches at elev. -25.0' at lowest point, 2-eagle trees, avalanche zone and very steep terrain
58-59	EIT-21	1915+13		1969+78	145	139352	3.20	34700	35800	Fill catches at elev. 10' at lowest point, 2-eagle trees, 2-avalanche zones and very steep terrain
61	EIT-20	2033+98		2038+63	166	36492	0.84	9600	26100	Fill catches at elev. 5.5' at lowest point, 3-avalanche zones and steep terrain
61	EIT-19	2049+07		2052+84	94	3742	0.09	800	1400	Fill catches at elev. 15.8' at lowest point, eagle tree, avalanche zone and steep terrain
62-63	STN-6 to 8	2087+38		2109+27	87	112410	2.58	29600	60200	Fill catches at elev. -25.0' at lowest point, eagle tree, avalanche zones and steep terrain
64	EIT-18	2284+70		2285+46	117	349	0.01	100	1100	Fill catches at elev. 20'+, Very steep terrain
69	EIT-14	2582+07		2585+07	17	4046	0.09	1000	1600	Fill down to elev. 11.4', Very steep terrain. 160' bridge over un-named drainage
70	EIT-13	2603+74		2614+95	180	113106	2.60	18400	55100	Katzehin Bridge and approaches, eagle tree and steep terrain.
72	KATZ 1-4	2736+92		2743+25	124	69406	1.59	16000	63400	Fill catches at elev. 8.8' at lowest point, eagle tree, 2-avalanche zones and steep terrain.
72	KATZ 1-4	FERRY TERMINAL FILL				166728	3.83	61200	14400	Fill catches at elev. 3.7' (Note: Fill area includes 0.2 acre Estuarine Emergent Wetlands)
					TOTALS =	1114465	29.41	294200	565900	
KATZEHIN FERRY TERMINAL BREAKWATER FILL										
						S.F.	ACRES			
	EIT-11/ KATZ 1-4					119388	2.74	49400	1600	
KATZEHIN FERRY TERMINAL DREDGE										
						S.F.	ACRES	VOL.C.Y.		
	KATZ 1-4					191720	4.40	40000		

\* Fill above elevation 21.0', but seaward of the vertical plane of the 21.0' contour.

Survey # refers to ID found on detail sheets.

## ADJACENT PROPERTY OWNERS:

1. U.S. FOREST SERVICE AND OTHERS, VARIES

## TIDELANDS FILL SUMMARY

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

## JUNEAU ACCESS IMPROVEMENTS

FILE#: POA-2006-597-2

AT: JUNEAU, ALASKA

DATE: FEBRUARY, 2006 SHEET **21** OF **33**

### CULVERT AND STREAM FILL SUMMARY

STATION	CULVERT DIAMETER						RIPRAP (C.Y.)	BEDDING (C.Y.)	FOOTPRINT (S.F.)	CONCRETE (C.Y.)	COMMENTS
	24"	36"	48"	60"	72"	OTHER					
70+42	36							*	144		EXTEND EXISTING 16' LT, 20' RT.
81+21	32							2.4	128		EXTEND EXISTING 6' LT, 26' RT.
91+44	22							*	88		EXTEND EXISTING 12' LT, 10' RT.
99+06	24							*	96		EXTEND EXISTING 4' LT, 20' RT.
100+74	40							*	160		EXTEND EXISTING 36' LT, 4' RT.
102+43	22							*	88		EXTEND EXISTING 8' LT, 14' RT.
104+53	60							*	240		
107+39			46				8	5.1	276		EXTEND EXISTING 24' LT, 22' RT.
109+72	22							1.6	88		EXTEND EXISTING 16' LT, 6' RT.
110+81	28							*	112		EXTEND EXISTING 8' LT, 20' RT.
112+74	60							4.4	240		
118+48	40						3	3.0	160		EXTEND EXISTING LT.
120+24	44							*	176		EXTEND EXISTING 40' LT, 4' RT.
121+80	30							*	120		EXTEND EXISTING 6' LT, 24' RT.
123+83	34							2.5	136		EXTEND EXISTING 6' LT, 24' RT.
130+81			26					2.9	156		EXTEND EXISTING 8' LT, 20' RT.
137+92		36						3.3	180		EXTEND EXISTING 24' LT, 12' RT.
142+97					50			7.4	400		EXTEND EXISTING 18' LT, 32' RT.
144+46	28							*	112		EXTEND EXISTING 4' LT, 24' RT.
165+87	48							3.6	192		EXTEND EXISTING 34' LT, 14' RT.
191+33	28							*	112		EXTEND EXISTING 22' LT, 8' RT.
193+29	60							4.4	240		
213+55						42		N/A	N/A		CASCADE CREEK 180"x5'9" ALUMINUM ARCH
216+73		126						11.7	630		
218+61	90							6.7	360		
221+55	88							6.5	352		
234+42			150					16.7	900		
235+45	100' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED						14.7		792		DRAINAGE FILLED. FLOW INTERCEPTED AT FOLLOWING CULVERT
235+70			132								NOT IN EXISTING DRAINAGE
237+66			114					12.7	684		
242+71	66							4.9	264		
244+90	76							5.6	304		
264+51		110						10.2	550		
266+61		106						9.8	530		
267+69	92							6.8	368		
285+78		95						8.8	475		
296+64		96						8.9	480		
298+80	62							*	248		
300+50	56							4.1	224		
309+40		68						6.3	340		
326+53		92						8.5	460		
336+00			84					9.3	504		
340+37				76			60	9.9	532	1.4	2-TYPE I HEADWALLS, PIPE OUTLET SPILLWAY

\* QUANTITY OF THIS ITEM IS INCLUDED IN WETLANDS FILL VOLUME. NOTE: EACH CULVERT LISTING GIVES LENGTH IN FEET.

## CULVERT SUMMARY

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

**JUNEAU ACCESS IMPROVEMENTS  
ECHO COVE TO ANTLER RIVER  
FILE #: POA-2006-597-2**

AT: JUNEAU, ALASKA

DATE: FEBRUARY, 2006 SHEET **22** OF **33**

### CULVERT AND STREAM FILL SUMMARY

STATION	CULVERT DIAMETER						RIPRAP (C.Y.)	BEDDING (C.Y.)	FOOTPRINT (S.F.)	CONCRETE (C.Y.)	COMMENTS
	24"	36"	48"	60"	72"	OTHER					
343+80	88							6.5	352		
345+03			132					14.7	792		
351+66		122						11.3	610		
352+79		128						11.9	640		
353+64		146						13.5	730		
357+71		146					39	13.5	730		PIPE OUTLET SPILLWAY
359+90		132					58	12.2	660		PIPE OUTLET SPILLWAY
361+28				140			84	18.1	980	2.8	2-TYPE I HEADWALLS, PIPE OUTLET SPILLWAY
362+19			120				52	13.3	720		PIPE OUTLET SPILLWAY
363+33	114						14	8.4	458		PIPE OUTLET SPILLWAY
372+51	64							4.7	256		
376+86		92					15	8.5	460		PIPE OUTLET SPILLWAY
379+41		98					25	9.1	490		PIPE OUTLET SPILLWAY
396+33		54					28	5.0	270		PIPE OUTLET SPILLWAY
408+50		132					49	12.2	660		PIPE OUTLET SPILLWAY
410+23		136					46	12.6	680		PIPE OUTLET SPILLWAY
412+39		96					65	8.9	480		PIPE OUTLET SPILLWAY
421+95						120	50	31.1	1680	9.2	144" PIPE, 2-TYPE I HEADWALLS, PIPE OUTLET SPILLWAY
432+77	64						18	4.7	256		PIPE OUTLET SPILLWAY
446+36		60						5.6	300		
462+65		60						5.6	300		
477+97	62							4.8	248		
490+51		64					46	5.9	320		PIPE OUTLET SPILLWAY
493+36				54				7.0	378		
493+71				54				7.0	378		
494+49						42	103	N/A	N/A		35'4"X11'X5" STEEL ARCH
514+17		60						5.6	300		
517+78		78						7.2	390		
546+34			70					7.8	420		
564+60	100' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
565+15	100' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
561+55					64			9.5	512	1.9	

\* QUANTITY OF THIS ITEM IS INCLUDED IN WETLANDS FILL VOLUME. NOTE: EACH CULVERT LISTING GIVES LENGTH IN FEET.

## CULVERT SUMMARY

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

**JUNEAU ACCESS IMPROVEMENTS**  
**ECHO COVE TO ANTLER RIVER**  
**FILE #: POA-2006-597-2**

AT: JUNEAU, ALASKA

DATE: FEBRUARY, 2006 SHEET **23** OF **33**



## CULVERT AND STREAM FILL SUMMARY

STATION	CULVERT DIAMETER						RIPRAP (C.Y.)	BEDDING (C.Y.)	FOOTPRINT (S.F.)	CONCRETE (C.Y.)	COMMENTS
	24"	36"	48"	60"	72"	OTHER					
745+00		60						5.6	300		DITCH TO MAKE CONNECTION WITH EXISTING DRAINAGE
746+00	215' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
746+90		54					55.2	5.0	270		BACKSLOPE SPILLWAY RIPRAP
747+65							130.6				OUTLET DITCH
747+89	160' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
748+36		54					78.7	5.0	270		BACKSLOPE SPILLWAY RIPRAP
749+03	310' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
749+67	200' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
750+05							141.5				BACKSLOPE SPILLWAY RIPRAP
750+24	220' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
751+10		54					135.6	5.0	270		SKEW 10°, RT. AHEAD
751+50	170' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
752+46	290' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED						133.9				BACKSLOPE SPILLWAY RIPRAP. THRU-CUT - FLOW CARRIED ALONG DITCH
753+30		54						5.0	270		SKEW 10°, RT. AHEAD
753+88							123.0				BACKSLOPE SPILLWAY RIPRAP
754+15	260' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
755+91							101.3				BACKSLOPE SPILLWAY RIPRAP
755+91	200' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
757+93	140' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
760+66		72					12.6	6.7	360		PIPE OUTLET SPILLWAY RIPRAP
765+01		182					27.6	16.9	910		PIPE OUTLET SPILLWAY RIPRAP
771+80		104						9.6	520		
788+14	122							9.0	488		
794+03	148							11.0	592		
798+30		152						14.1	760		
802+99	128							9.5	512		
828+13		62					76.2	5.7	310		PIPE OUTLET SPILLWAY RIPRAP
830+62	56							4.1	224		
832+81	58						32.6	4.3	232		SKEW 14° - 21', RT. AHEAD, PIPE OUTLET SPILLWAY RIPRAP
846+51		130						12.0	650		SKEW 39° - 9', LT. AHEAD
860+00		78						7.2	390		SKEW 6° - 51', LT. AHEAD
865+28		82					16.7	7.6	410		PIPE OUTLET SPILLWAY RIPRAP
879+30		110						10.2	550		
880+29		92						*	460		
883+20		80						*	400		
884+65				68				*	616	*	SKEW 15° - 42', RT. AHEAD, TYPE 1 HEADWALL
891+75		74						*	370		
893+33		56						5.2	280		

\* QUANTITY OF THIS ITEM IS INCLUDED IN WETLANDS FILL VOLUME. NOTE: EACH CULVERT LISTING GIVES LENGTH IN FEET.

### CULVERT SUMMARY

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

JUNEAU ACCESS IMPROVEMENTS  
LACE R. TO INDEPENDENCE CR.  
FILE #: POA-2006-597-2

AT: JUNEAU, ALASKA

DATE: FEBRUARY, 2006 SHEET **24** OF **33**

## CULVERT AND STREAM FILL SUMMARY

STATION	CULVERT DIAMETER						RIPRAP (C.Y.)	BEDDING (C.Y.)	FOOTPRINT (S.F.)	CONCRETE (C.Y.)	COMMENTS
	24"	36"	48"	60"	72"	OTHER					
894+62		76						7.0	380		SKEW 28° - 4' LT. AHEAD
895+28		60						5.6	300		SKEW 6° - 53' RT. AHEAD
901+72		52					58.6	4.8	260		BACKSLOPE SPILLWAY RIPRAP
902+25	200' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
931+88	60							4.4	240		
933+10	78							*	312		
935+50		86						*	430		
941+50	52							3.9	208		
944+50	64							*	256		
947+50	66							*	264		
949+46	66							*	264		
952+50	68							*	272		
955+92	66							*	264		
959+00	68							*	272		
962+00	64							*	256		
964+70		62						*	310		
968+00	66							*	264		
972+00	58							*	232		
975+00	62							*	248		
978+63		72						*	360		
981+50	66							*	264		
984+00	64							*	256		
989+00	70							*	280		
992+00	70							*	280		
995+74		84						*	420		
999+50	68							*	272		
1003+75					76			*	608	*	TYPE 1 HEADWALL
1004+00	110' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED *										DRAINAGE FILLED. FLOW INTERCEPTED AT PRECEDING CULVERT
1006+46			84					*	504		
1008+03	68						*	*	272		PIPE OUTLET SPILLWAY RIPRAP
1008+66	74						*	*	296		
1010+11					90		*	*	720	*	SKEW 19° - 12' RT. AHEAD, TYPE 1 HEADWALL
1011+85				136			*	*	952	*	SKEW 11° - 23' LT. AHEAD, TYPE 1 HEADWALL
1014+84	66							4.9	264		SKEW 12° - 50' RT. AHEAD
1015+77	66							4.9	264		
1016+86	60							*	240		SKEW 19° - 28' RT. AHEAD
1029+70		76					*	*	380		PIPE OUTLET SPILLWAY RIPRAP

\* QUANTITY OF THIS ITEM IS INCLUDED IN WETLANDS FILL VOLUME. NOTE: EACH CULVERT LISTING GIVES LENGTH IN FEET.

### CULVERT SUMMARY

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

**JUNEAU ACCESS IMPROVEMENTS**  
LACE R. TO INDEPENDENCE CR.  
FILE #: POA-2006-597-2

AT: JUNEAU, ALASKA

DATE: FEBRUARY, 2006 SHEET **25** OF **33**

## CULVERT AND STREAM FILL SUMMARY

STATION	CULVERT DIAMETER						RIPRAP (C.Y.)	BEDDING (C.Y.)	FOOTPRINT (S.F.)	CONCRETE (C.Y.)	COMMENTS
	24"	36"	48"	60"	72"	OTHER					
1038+68	82							*	328		
1039+24	160' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED *										DRAINAGE FILLED. FLOW INTERCEPTED AT PRECEDING CULVERT
1041+50		70					*	*	350		PIPE OUTLET SPILLWAY RIPRAP
1044+50		64					*	*	320		PIPE OUTLET SPILLWAY RIPRAP
1047+52			86					*	516		SKEW 15° - 33' RT. AHEAD
1051+05	72							*	288		
1052+89	74							*	296		SKEW 20° - 34' LT. AHEAD
1054+67	94							*	376		SKEW 33° - 19' RT. AHEAD
1058+00	72							*	288		
1061+00	72							*	288		
1064+00	66							*	264		
1068+78				76				*	532	*	SKEW 34° - 36' LT. AHEAD, TYPE 1 HEADWALL
1073+00		74						*	370		
1074+50		104						9.6	520		
1077+35			114					*	684		SKEW 15° - 11' RT. AHEAD
1083+50		66						6.1	330		
1087+10					60		*	*	480	*	PIPE OUTLET SPILLWAY RIPRAP, TYPE 1 HEADWALL
1090+79		88						*	440		SKEW 30° - 38' RT. AHEAD
1095+00		84						*	420		SKEW 32° - 24' RT. AHEAD
1096+92	68							5.0	272		SKEW 32° - 24' RT. AHEAD
1101+45		68						*	340		SKEW 14° - 05' LT. AHEAD
1102+51		72						*	360		SKEW 20° - 02' LT. AHEAD
1104+50	60							*	240		
1107+82					82			*	656	*	SKEW 8° - 20' RT. AHEAD, TYPE 1 HEADWALL
1111+60	78							*	312		
1123+00		64					*	*	320		PIPE OUTLET SPILLWAY RIPRAP
1127+19				140				*	980	*	SKEW 38° - 33' RT. AHEAD, TYPE 1 HEADWALL
1127+40	120' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED *										DRAINAGE FILLED. FLOW INTERCEPTED AT PRECEDING CULVERT
1129+50	74							*	296		
1134+50		68						*	340		
1138+20	80							*	320		
1140+36				80				*	560	*	TYPE 1 HEADWALL
1142+95	86							*	344		SKEW 28° RT. AHEAD
1149+00		60						5.6	300		
1150+00	330' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED *										DRAINAGE FILLED. FLOW INTERCEPTED AT PRECEDING CULVERT

\* QUANTITY OF THIS ITEM IS INCLUDED IN WETLANDS FILL VOLUME. NOTE: EACH CULVERT LISTING GIVES LENGTH IN FEET.

### CULVERT SUMMARY

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

**JUNEAU ACCESS IMPROVEMENTS**  
LACE R. TO INDEPENDENCE CR.  
FILE #: POA-2006-597-2

AT: JUNEAU, ALASKA

DATE: FEBRUARY, 2006 SHEET **26** OF **33**

## CULVERT AND STREAM FILL SUMMARY

STATION	CULVERT DIAMETER						RIPRAP (C.Y.)	BEDDING (C.Y.)	FOOTPRINT (S.F.)	CONCRETE (C.Y.)	COMMENTS
	24"	36"	48"	60"	72"	OTHER					
1152+00		66						*	330		
1156+27		80						*	400		
1156+60	160' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED *										DRAINAGE FILLED. FLOW INTERCEPTED AT PRECEDING CULVERT
1159+54		70						6.5	350		
1161+38	82						38.5	6.1	328		PIPE OUTLET SPILLWAY RIPRAP
1164+10	68						27.6	5.0	272		SKEW 8° - 17' LT. AHEAD, PIPE OUTLET SPILLWAY RIPRAP
1165+67		64					*	*	320		SKEW 12° - 51' RT. AHEAD, PIPE OUTLET SPILLWAY RIPRAP
1167+50	62							*	248		
1170+60		76					*	*	380		SKEW 28° - 42' RT. AHEAD, PIPE OUTLET SPILLWAY RIPRAP
1173+00	68							*	272		SKEW 19° - 46' RT. AHEAD
1174+35	60							*	240		
1180+70	125' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED *										DRAINAGE FILLED. FLOW INTERCEPTED AT FOLLOWING CULVERT
1180+90		92						*	460		
1185+60	160' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED *										DRAINAGE FILLED. FLOW INTERCEPTED AT FOLLOWING CULVERT
1185+78					116			*	928	*	TYPE 1 HEADWALL
1189+00	58							*	232		
1191+50	68							*	272		
1193+55	72							*	288		
1194+68	74							5.5	296		SKEW 19° - 21' RT. AHEAD
1196+06	64							*	256		
1196+50		76						7.0	380		
1201+00	52							3.9	208		
1206+53			100					*	600		
1210+37			90					*	540		
1213+19	100							*	400		
1214+93	106							*	424		
1214+95	90' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED *										DRAINAGE FILLED. FLOW INTERCEPTED AT PRECEDING CULVERT
1217+76		114						10.6	570		
1220+79			82				*	*	492		PIPE OUTLET SPILLWAY RIPRAP
1222+80	78						19.3	5.8	312		PIPE OUTLET SPILLWAY RIPRAP
1225+70	135' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED						31.8		490		DRAINAGE FILLED. FLOW INTERCEPTED AT FOLLOWING CULVERT
1225+89		98									NOT IN EXISTING DRAINAGE
1227+60	102						29.3	7.6	408		PIPE OUTLET SPILLWAY RIPRAP

\* QUANTITY OF THIS ITEM IS INCLUDED IN WETLANDS FILL VOLUME. NOTE: EACH CULVERT LISTING GIVES LENGTH IN FEET.

### CULVERT SUMMARY

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

**JUNEAU ACCESS IMPROVEMENTS**  
**LACE R. TO INDEPENDENCE CR.**  
**FILE #: POA-2006-597-2**

AT: JUNEAU, ALASKA

DATE: FEBRUARY, 2006 SHEET **27** OF **33**

## CULVERT AND STREAM FILL SUMMARY

STATION	CULVERT DIAMETER						RIPRAP (C.Y.)	BEDDING (C.Y.)	FOOTPRINT (S.F.)	CONCRETE (C.Y.)	COMMENTS
	24"	36"	48"	60"	72"	OTHER					
1228+59		92					38.5	8.5	460		PIPE OUTLET SPILLWAY RIPRAP
1232+17		90					19.3	8.3	450		PIPE OUTLET SPILLWAY RIPRAP
1234+07	108						13.4	8.0	432		SKEW 16° - 30' RT. AHEAD, PIPE OUTLET SPILLWAY RIPRAP
1235+80	98							7.3	392		
1250+00	66							*	264		
1252+50	72							*	288		
1255+50	74							*	296		
1258+80		90						*	450		SKEW 20° - 09' LT. AHEAD
1260+60		98						9.1	490		SKEW 20° - 26' LT. AHEAD
1267+00	72							*	288		
1270+00	62							*	248		
1281+43		106						9.8	530		SKEW 36° - 27' LT. AHEAD
1285+17	84							6.2	336		SKEW 25° - 10' LT. AHEAD
1299+32	85' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1304+84	110' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1307+30	105' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1310+05	90' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1310+09	80' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1310+59	65' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1312+66	80' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1313+92	54							4.0	216		
1315+24	58										NOT IN EXISTING DRAINAGE
1315+40	65' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED						4.3		232		DRAINAGE FILLED. FLOW INTERCEPTED AT PRECEDING CULVERT
1320+78	85' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1321+61	95' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1323+71	110' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1324+93	120' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1334+37	115' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1336+02		84						7.8	420		SKEW 22° - 56' LT. AHEAD
1337+32		98						9.1	490		
1339+74		82									NOT IN EXISTING DRAINAGE
1340+50	240' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED						7.6		410		DRAINAGE FILLED. FLOW INTERCEPTED AT PRECEDING CULVERT
1342+59		128					25.1	11.9	640		SKEW 31° - 37' LT. AHEAD, PIPE OUTLET SPILLWAY RIPRAP

\* QUANTITY OF THIS ITEM IS INCLUDED IN WETLANDS FILL VOLUME. NOTE: EACH CULVERT LISTING GIVES LENGTH IN FEET.

### CULVERT SUMMARY

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

JUNEAU ACCESS IMPROVEMENTS  
LACE R. TO INDEPENDENCE CR.  
FILE #: POA-2006-597-2

AT: JUNEAU, ALASKA

DATE: FEBRUARY, 2006 SHEET **28** OF **33**

## CULVERT AND STREAM FILL SUMMARY

STATION	CULVERT DIAMETER						RIPRAP (C.Y.)	BEDDING (C.Y.)	FOOTPRINT (S.F.)	CONCRETE (C.Y.)	COMMENTS
	24"	36"	48"	60"	72"	OTHER					
1350+84		68					12.6	6.3	340		SKEW 17° - 43' LT. AHEAD, PIPE OUTLET SPILLWAY RIPRAP
1357+65	62							4.6	248		
1358+42	66							4.9	264		
1360+80	52						13.4	3.9	208		PIPE OUTLET SPILLWAY RIPRAP
1362+52	72							*	288		
1366+18	88							6.5	352		SKEW 48° - 39' LT. AHEAD
1373+41	58							4.3	232		
1379+76	54							4.0	216		
1388+48		86						8.0	430		
1421+50		68						6.3	340		
1434+88	66							4.9	264		
1461+88				82				10.6	574	1.4	TYPE 1 HEADWALL
1468+00				88				11.4	616	1.4	TYPE 1 HEADWALL
1498+67											FLOW CARRIED ALONG EMBANKMENT TO PRECEEDING CULVERT
1475+37				110				14.3	770	1.4	TYPE 1 HEADWALL
1480+70				92				11.9	644	1.4	TYPE 1 HEADWALL
1486+95				104				13.5	728	1.4	TYPE 1 HEADWALL
1490+00			106					11.8	636		
1496+02			102					11.3	612		
1498+87			100					11.1	600		
1502+51				78				10.1	546	1.4	TYPE 1 HEADWALL
1504+40	200' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED						9.3		504		DRAINAGE FILLED. FLOW INTER- CEPTED AT FOLLOWING CULVERT
1504+90				72						1.4	NOT IN EXISTING DRAINAGE
1513+44	200' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1513+50	80' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1516+03	80' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1517+00		54						5.0	270		
1517+59	70' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1520+60		54						5.0	270		
1520+75	65' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1523+00		54						5.0	270		
1526+00		54						5.0	270		
1527+17	75' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1529+60		54						5.0	270		
1532+00		54						5.0	270		
1533+69	70' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1536+67	75' OF DRAINAGE CHANNEL REMOVED AND RE-ROUTED										THRU CUT - FLOW CARRIED ALONG DITCH
1540+20		54						5.0	270		
** TOTALS	241 CULVERTS						2,192	3,300	92,000	25.1	

NOTE: EACH CULVERT LISTING  
GIVES LENGTH IN FEET.

\* THE QUANTITY OF THIS ITEM IS  
INCLUDED IN WETLANDS FILL  
VOLUME.

\*\* THIS TOTAL IS FOR SHEETS 22 TO  
29.

### CULVERT SUMMARY

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

JUNEAU ACCESS IMPROVEMENTS  
LACE R. TO INDEPENDENCE CR.  
FILE #: POA-2006-597-2

AT: JUNEAU, ALASKA

DATE: FEBRUARY, 2006 SHEET **29** OF **33**

CULVERT SUMMARY									
STATION	CULVERT DIAMETER				STATION	CULVERT DIAMETER			
	24"	36"	48"	72"		24"	36"	48"	72"
1555+00		56			1827+00	56			
1559+00	54				1831+00	52			
1563+00	50				1835+00	52			
1567+00		54			1839+00	52			
1571+00	52				1843+00	52			
1579+00	52				1847+00	52			
1583+00	50				1851+00	52			
1588+00	52				1856+00	50			
1591+00	52				1860+00	50			
1595+00		66			1864+00	54			
1604+00	56				1868+00	54			
1608+00	50				1872+00	56			
1613+25		60			1876+00	56			
1618+00	50				1885+00		56		
1624+00	50				1894+00		56		
1628+00	50				1898+00	54			
1632+00	50				1901+00	54			
1635+00	52				1909+00	54			
1642+00			70		1915+00	54			
1645+00	52				1919+00	54			
1649+00	52				1923+00	54			
1654+00	52				1927+00	54			
1659+00		56			1931+00	54			
1662+50			96		1935+00	54			
1665+25			100		1939+00	54			
1668+00	54				1943+00	54			
1676+00	54				1947+00	54			
1680+00	60				1951+50		56		
1684+00	54				1956+00	54			
1688+00			54		1960+00	54			
1692+00	60				1964+00	54			
1696+00	54				1972+00	50			
1700+00	54				1976+00	50			
1704+00		60			1980+00	52			
1708+00	52				1985+00	50			
1712+00	52				1990+00	50			
1716+00	52				1993+00	50			
1720+00	60				1996+00	50			
1729+00	54				2004+00	50			
1731+00		64			2007+00	50			
1736+00		56			2013+00		56		
1739+50		56			2020+61			70	
1741+00		56			2033+00		56		
1758+00		52			2037+00	56			
1761+00		72			2040+00	52			
1775+00	54				2042+00		54		
1779+00	56				2044+00		54		
1783+00	56				2049+00		54		
1787+00	54				2053+50			54	
1794+00	54				2058+00	52			
1798+00	54				2062+00	52			
1803+00	56				2066+00	52			
1811+00				108	2072+00		52		
1815+00	52				2078+00	54			
1819+00	52				2082+00	54			
1823+00	52				2087+00				56

NOTE: EACH CULVERT LISTING GIVES LENGTH IN FEET.

MORE BEDDING AND FOOTPRINT  
INFORMATION WILL BE PROVIDED  
FOLLOWING GEOTECHNICAL AND  
OTHER SURVEYS IN 2006-07.

## PRELIMINARY CULVERT SUMMARY

APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

JUNEAU ACCESS IMPROVEMENTS

FILE#: POA-2006-597-2

AT: JUNEAU, ALASKA

DATE: FEBRUARY, 2006

SHEET **30** OF **33**

CULVERT SUMMARY									
STATION	CULVERT DIAMETER				STATION	CULVERT DIAMETER			
	24"	36"	48"	72"		24"	36"	48"	72"
2090+00	54				2349+00	52			
2094+00	54				2359+00	50			
2098+00	54				2368+00	50			
2102+00				56	2374+50			56	
2106+00	54				2379+00	50			
2109+00	54				2383+00	52			
2113+00	50				2387+00	52			
2117+00	50				2401+00		56		
2119+00	50				2408+00	52			
2123+00	54				2412+00	56			
2127+00			54		2420+00	56			
2131+00	52				2424+00	50			
2135+00	50				2428+00	56			
2140+00	50				2438+00		56		
2144+00	52				2448+00		56		
2148+00	52				2453+00	52			
2152+00	54				2458+00	52			
2156+00	52				2463+00		56		
2160+00	52				2468+00	50			
2165+00	52				2472+00	52			
2169+00	50				2481+00		54		
2179+00	54				2485+50	52			
2183+00	54				2492+00	52			
2189+50			56		2497+00	50			
2191+25		56			2501+00	50			
2198+00	50				2504+00	56			
2201+00	50				2511+50		56		
2205+00	52				2517+00	52			
2209+00	54				2521+00	50			
2213+00	52				2531+00	52			
2217+00	52				2536+00		56		
2221+00	52				2547+00		56		
2223+00			54		2553+00	52			
2227+00	56				2557+00	52			
2237+00			56		2561+00		56		
2241+00	52				2572+00	56			
2246+00		54			2583+00	50			
2252+00	50				2586+00	50			
2266+00			56		2598+00	56			
2270+00			56		2606+00	56			
2274+00	56				2639+00				110
2280+00			56		2647+00				130
2284+00	52				2666+00			118	
2488+00	52				2671+50			120	
2298+00	52				2680+50			120	
2302+00	50				2696+00				120
2312+00	50				2702+00			120	
2316+00	56				2710+00			110	
2319+00	52				2714+00		110		
2327+00	52				2718+00	56			
2332+00	50				2722+00		110		
2344+00		56			2726+00		86		
2335+00	50				2730+00	56			
2340+00	50				2734+00		100		
2344+00	50				2738+00		130		
					2742+00	96			

NOTE: EACH CULVERT LISTING GIVES LENGTH IN FEET.

MORE BEDDING AND FOOTPRINT  
INFORMATION WILL BE PROVIDED  
FOLLOWING GEOTECHNICAL AND  
OTHER SURVEYS IN 2006-07.

## PRELIMINARY CULVERT SUMMARY

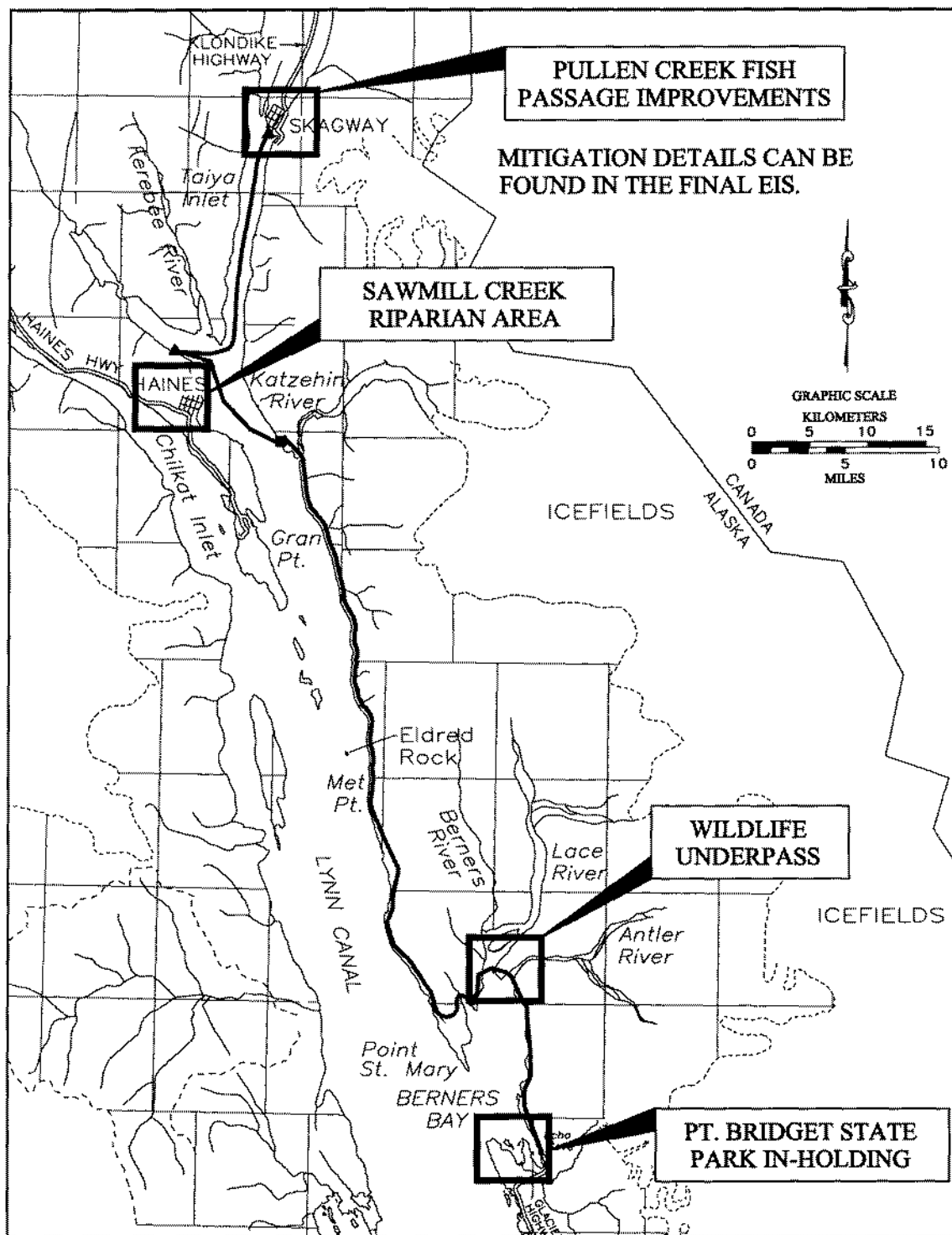
APPLICATION BY:  
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

JUNEAU ACCESS IMPROVEMENTS  
FILE#: POA-2006-597-2

AT: JUNEAU, ALASKA

DATE: FEBRUARY, 2006 SHEET **31** OF **33**





**PURPOSE OF PROJECT:**  
PROPOSED ACCESS ROAD

**WATER BODIES:**  
LYNN CANAL AND  
BERNERS BAY

## PROPOSED MITIGATION SITES VICINITY MAP

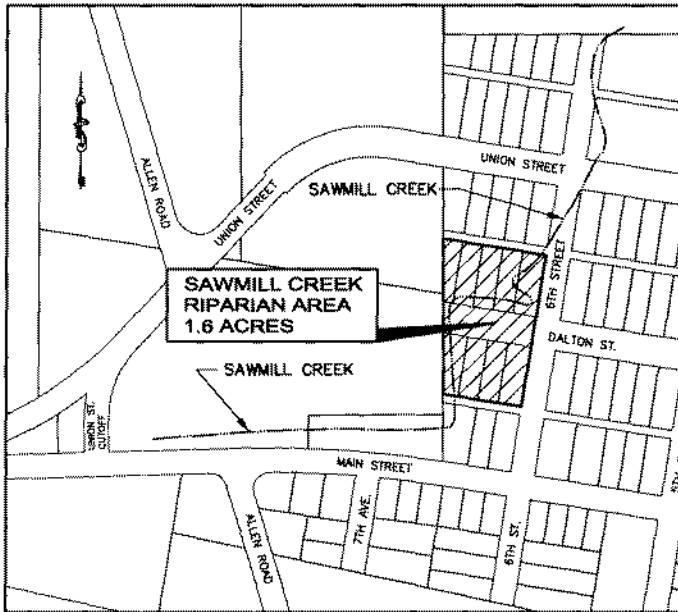
ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

**JUNEAU ACCESS IMPROVEMENTS**  
FILE #: POA - 2006 - 597 - 2

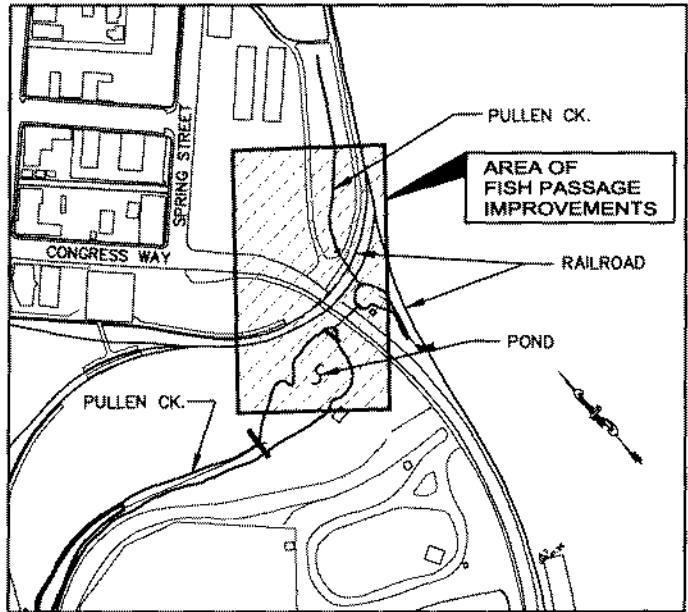
AT: JUNEAU, ALASKA & HAINES, ALASKA  
LOCATED IN: T. 31 S. TO T. 37 S. & R. 60 E. TO R. 64 E.

DATE: FEBRUARY, 2006

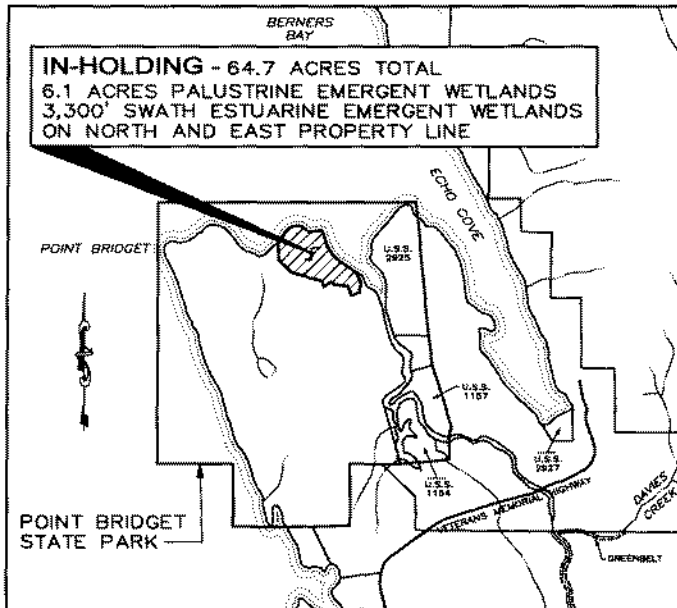
SHEET 32 OF 33



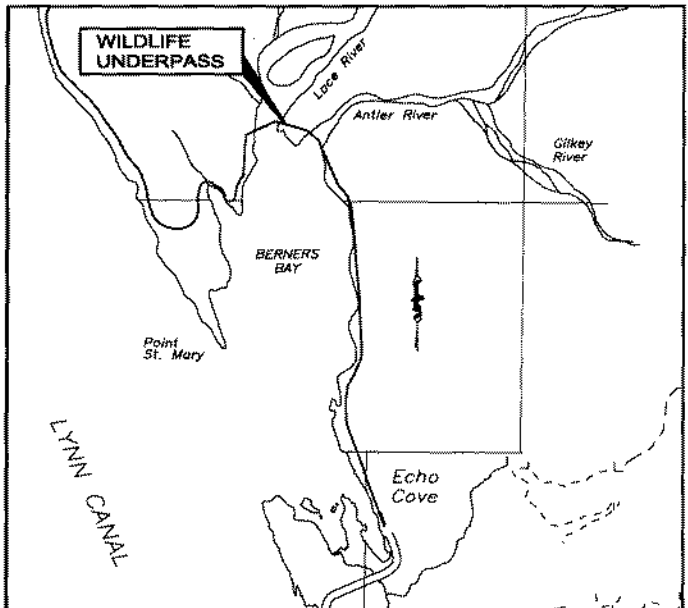
SAWMILL CREEK RIPARIAN AREA



PULLEN CREEK FISH PASSAGE IMPROVEMENTS



PT. BRIDGET STATE PARK IN-HOLDING



WILDLIFE UNDERPASS

PURPOSE OF PROJECT:  
PROPOSED ACCESS ROAD

WATER BODIES:  
LYNN CANAL AND  
BERNERS BAY

## PROPOSED MITIGATION SITES

ALASKA STATE DEPT. OF TRANSPORTATION  
AND PUBLIC FACILITIES  
S.E. REGION DESIGN & ENGINEERING SERVICES

JUNEAU ACCESS IMPROVEMENTS  
FILE # : POA - 2006 - 597 - 2

AT: JUNEAU, ALASKA

LOCATED IN: T. 31 S. TO T. 37 S. & R. 60 E. TO R. 64 E.

DATE: FEBRUARY, 2006

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